

IN THE
Supreme Court of the United States.

OCTOBER TERM, A. D. 1901.

No. 28.

PEOPLE OF THE STATE OF ILLINOIS UPON THE RELATION
OF GEORGE HUNT, ATTORNEY GENERAL,

Appellant,

VS.

THE ILLINOIS CENTRAL RAILROAD COMPANY ET AL.,

Appellee.

MR. EDWARD C. AKIN,

Attorney General for the State of Illinois,

MR. JOHN H. HAMLINE,

MR. FRANK H. SCOTT,

MR. FRANK E. LORD,

Counsel for Appellant.

MR. B. F. AYER,

MR. JOHN N. JEWETT,

MR. CHARLES M. WALKER,

Counsel for Appellees.

Appeal from the United States Circuit Court of Appeals for the Seventh Circuit.

82

INDEX.

	Original Transcript.	Printed Record.
Caption.....	1	1
Order granting leave to file transcript from State court	1	2
Bond of costs.....	2	2
Transcript from State court.....	2	3
Caption.....	2	3
Information.....	3	4
Map.....	16	21
Summons and return.....	16	21
Answer of Illinois Central R. R. Co.....	17	22
Exhibit A—Ordinance concerning Ills. Cen- tral R. R.....	31	41
Petition for removal.....	34	46
Bond for removal.....	37	49
Notice of application for removal.....	38	51
Order continuing application for removal.....	38	52
Clerk's certificate.....	39	52
Judge's certificate.....	39	52
Answer of City of Chicago.....	39	53
Order taking motion to remand under advisement...	41	55
Order overruling motion to remand.....	41	56
Replication to answer of Ills. Central R. R. Co.....	42	56
Order of reference to master.....	42	57
Order granting leave to file petition of canal com- missioners, &c.....	43	
Petition of canal commissioners.....	43	
Order taking petition of canal commissioners under advisement.....	44	
Order granting time to prepare briefs.....	45	
Order granting leave to amend information, &c.....	45	58
Order granting leave to file an amended information, &c.....	46	59
Amended information.....	46	59
Stipulation to amend amended information.....	68	88
Order granting leave to further amend information..	68	89

Answer of Illinois Central Railroad Co. to amended information.....	69	91
Exhibit A—Ordinance concerning Ills. Central R. R.....	92	121
Order granting leave to file replication to answer of Ills. Central R. R. Co.....	95	126
Replication to answer of Ills. Central R. R. Co.....	96	127
Order of reference to master.....	96	127
Answer of city to amended information.....	97	
Order extending time to close proofs.....	101	
Appearance for City of Chicago.....	101	
Order postponing motion to close proofs, &c.....	101	
Order in relation to proofs.....	102	
Order postponing motion for time to close proofs...	102	
Order extending time to take proofs.....	102	
Affidavit of E. B. McCagg.....	103	
Order setting cause for hearing.....	104	
Amended answer of City of Chicago.....	104	
Cross-bill of City of Chicago.....	108	
Order granting leave to file proposed amendments to amended information, &c.....	117	128
Proposed amendments to amended information.....	118	129
Amended information.....	121	134
Answer of the People of Illinois to cross-bill of City of Chicago.....	144	
Answer of Illinois Central to cross-bill of City of Chicago.....	151	
Replication to amended answer of City of Chicago...	164	
Replication to amended answer of Ills. Central R. R. Co.....	165	164
Amendment to answer of Illinois Central R. R. Co.	166	165
Stipulation as to Exhibits X, Y, and Z, &c.....	167	
Exhibits X and Y—Affidavits of John M. Adair	168	
Exhibit Z—Affidavit of James P. Root.....	170	
V—Proceedings of House of Representatives.....	171	
Orders: Hearing of case.....	173	166
Opinion of court.....	175	171
Decree.....	220	231
Motion to modify decree.....	225	238
Order continuing motion to modify decree.....	226	239
Order granting the United States an appeal.....	226	239
Petition of Illinois Central Railroad Co. for appeal...	227	240
Order granting appeal of the Ills. Central R. R. Co.	227	241

	Original Transcript.	Printed Record.
Appeal bond of the Ills. Central R. R. Co.	228	241
Order granting the appeal of the City of Chicago.	229	243
Appeal bond of the City of Chicago.	229	243
Master's report.	231	245
Evidence before the master.	232	247
Testimony of J. Y. Scammon.	232	247
Exhibits, &c., offered.	259	
Complainant's Exhibit Stipulation No. 1.	260	280
No. 2.	264	
No. 3.	266	284
Defendant City of Chicago Exhibit Stipulation No. 4.	268	
No. 5.	275	
Defendant Illinois Central R. R. Co.'s Ex. Stipula- tion No. 6.	276	
Defendant Illinois Central R. R. Co.'s Ex. Stipula- tion No. 7.	280	
Defendant Illinois Central R. R. Co.'s Ex. Stipula- tion No. 8.	282	286
Whittfield Lithograph of 1860.		290
Testimony of J. Y. Scammon.	285	291
John Dunn.	297	
Deed, United States to Ill. Central R. R., October 14, 1852.	300	
List of deeds, &c., showing title.	302	
Evidence on behalf of City of Chicago.	332	
Testimony of Fernando Jones.	332	305
City of Chicago Exhibit Stipulation No. 9.	334	308
City of Chicago Exhibit "Decision of the Secretary of the Interior as to Valentine Scrip".	336	312
Evidence on behalf of Ills. Central R. R. Co.	345	325
Testimony of L. P. Morehouse.	345	325
Illustrated Exhibits 10 Maps.	1101	328
" " 11 "	1102	331
" " 12 "	1103	335
Testimony of E. T. Jeffery and documents attached James W. Greer.	367	352
Gustav H. Carlson on behalf of com- plainant.	428	
Map Complainants Ex. 13 (known as the Carlson Map).	434	381
L. P. Morehouse (recalled).	1204	384
J. Y. Scammon (recalled).	440	390
Fernando Jones (recalled).	441	391
Stephen A. Douglass.	449	401
	453	405

Record of Bates case.....	454
Testimony of Hiram Hugunin.....	455
Charles C. P. Holden.....	469
Clarence Buckingham.....	483
George W. Cushing.....	495
Charles C. P. Holden (recalled).....	507
W. C. Garlock.....	507
Exhibits offered.....	515
Documents offered in evidence before E. B.	
Sherman, master in chancery, on behalf of	
City of Chicago.....	532
Act of legislature, January 15, 1831.....	533
February 12, 1831.....	533
February 27, 1833.....	534
February 11, 1835.....	535
January 15, 1836.....	535
March 4, 1837.....	536
February 16, 1847.....	538
February 14, 1851.....	540
February 12, 1853.....	543
February 28, 1854.....	543
February 18, 1861.....	544
February 13, 1863.....	545
February 15, 1865.....	548
March 6, 1867.....	548
Ordinance, October 23, 1865.....	548
Act of legislature, April 10, 1872.....	548
Ordinance, April 18, 1881.....	550
Act of Congress, July 21, 1852.....	550
August 1, 1854.....	550
March 3, 1819.....	551
Laws and documents on behalf of complainant before	
master.....	551
Journal of House, Twenty-sixth General Assembly.....	551
Veto of bill of John M. Palmer, governor.....	561
Journal of Senate.....	574
Act of legislature, February 14, 1823.....	579
Act of Congress, March 2, 1827.....	580
Act of legislature, January 22, 1829.....	580
February 15, 1831.....	583
January 9, 1836.....	587
March 2, 1837.....	595
February 21, 1843.....	599
March 1, 1845.....	606

	Original Transcript	Printed Record.
April 22, 1871.....	608	
April 15, 1873.....	609	43I
May 21, 1879.....	609	
May 27, 1881.....	610	
June 25, 1883.....	611	
Documents offered on behalf of Illinois Central		
R. R. before master.....	611	
Act of legislature, February 10, 1851.....	611	43I
Ordinance, June 14, 1852.....	623	448
Resolution accepting ordinance by Illinois Central R. R.	629	454
Agreement between city and Illinois Central R. R. Co.....	629	455
Ordinance, September 10, 1855.....	531	458
Acceptance of ordinance by Illinois Central R. Co.....	633	459
Ordinance, September 15, 1856.....	633	461
Act of legislature, April 16, 1869.....	634	425
Acceptance of said act by Illinois Central R. R. Co.....	637	429
Copy of record in United States vs. Illinois Central R. R. Co.....	638	462
Letter of Humphreys.....	642	466
Approval of same by Secretary of War.....	643	467
Report of the board.....	643	468
Ordinance of City of Chicago of July 12, 1880.....	646	473
Act of Congress, March 22, 1833.....	648	
Letter of Jeffery to Lydecker.....	648	475
Endorsement of Lydecker.....	649	475
Letter of H. G. Wright to Jeffery.....	649	476
Jeffery to Wright.....	650	477
Exhibit "A" to the testimony of Scammon—		
Map.....	650	
Defendant I. C. R. R. Co.'s Exhibit Map No. 10.....	650	
Defendant Illinois Central Railroad Co.'s Exhibit No. 11.....	650	
No. 12.....	650	
Complainant's Exhibit Map No. 13.....	650	
No. 14.....	650	
Defendant City of Chicago's Map No. 15.....	650	
No. 16.....	650	
Greeley's Map No. 1.....	650	
Certificate of clerk.....	650	477

Citation on appeal of Illinois Central R. R. Co.....	650	
Citation on appeal of City of Chicago.....	651	
Assignment of Errors by Illinois Central R. R. Co. .	652	
Order allowing appeal of the People of Illinois.....	655	
Bond on appeal of The People of Illinois.....	655	478
Clerk's certificate to appeal papers of The People of Illinois	656	479
Citation on appeal of The People of Illinois.....	656	480
Assignment of errors by The People of Illinois ..	657	481
Opinion of Supreme Court of United States.....		482
Mandate of " " " " "		519
Notice of motion.....		528
Order upon mandate redocketing cause, etc.....		529
Order of reference to master.....		531
Order as to compensation for master.....		532
EVIDENCE BEFORE MASTER.....		532
Testimony of William L. Marshall.....		532
Map A, being Map of Chicago Harbor and Bar, July and August, 1869.....		539
Map B, being a Map of Chicago Harbor, July, August and September, 1865.....		541
Map C, being Map of Chicago Harbor, April, 1857.....		545
Map D, being Map of Chicago Harbor, April 12, 1871.....		547
Map E, being Map of Chicago Harbor, May, 1878.....		550
Testimony of Horace E. Alexander.....		562
Map F. Plat by Alexander.....		566
" " James S. Dunham		573
" " Clark J. Tisdee.....		598
Exhibit G, Drawing		600
Testimony of G. A. M. Liljencrantz.....		602
" " Brenton R. Wells.....		615
Photographs, Exhibits H. I. J.		616
Testimony of John G. Shortall.....		638
Photographs, Exhibits K. L. M.....		639
Testimony of Frank E. Lord.....		646
" " Samuel S. Greeley		653
Maps N. and O. (Greeley)....		658
" " S. E. Lundgren		664
" " William T. Casgrain		668
and map P.....		688

Testimony of Charles E. Towne.....	689
" " Charles H. Merrill	693
" " John G. Shortall	705
" " John Prindiville	721
" " William Harmon	757
" " Edward Van Dolson	784
" " W. L. Brown	794
" " W. I. Babcock	801
" " Henry A. Kennedy	817
" " L. P. Morehouse	840
" " John C. Welling	878
" " William L. Tarbet	882
" " William L. Marshall	882
" " Charles E. Grafton	904
" " Redmond Prindiville	906
" " Lewis T. Moore	922
Documents Offered in Evidence	929
Statement of Anthony Seelberger	929
Map known as Complainant's Exhibit Q	930
Statement by Deputy Collector of Customs	930
Act of Legislature Approved Feb. 16, 1857	930
Ordinance of City Council Adopted Aug. 4, 1851	932
Ordinance of Council of May 1, 1854	937
Chapter 12 of Laws and Ordinances	938
" " 15 of Revised Ordinances	938
" " 25 of Municipal Code	939
Stipulation as to Sailing Vessel Rainbow	939
Complainant's Exhibit R	940
" " " "	941
" " " "	942
Establishment of Chicago Harbor Lines	942
Certificate of Master in Chancery	950
Defendant's Exhibits 4 and 5, being Report of Treasurer to Governor	951
Defendant's Exhibit No. 1, Map	953
" " " 3, "	954
" " " 6, "	955
" " " 7, "	956
" " " 9, "	956
" " " 10, "	956
Exhibit No. 2, Soundings	967
Hearing on Master's Report	1008
Decree of May 26, 1896	1010
Decision of Court	1012
Notice of Motion	1014

Order	1015
Certificate of Evidence	1015
Annual Report of Chief of Engineers for 1892	1016
(1) Ordinance of the city council of Chicago relating to lake front, passed October 21, 1895, and approved by the mayor October 23, 1895	1017
(2) Acceptance of said ordinance by the Illinois Central Rail- road Company, October 28, 1895	1028
(3) Agreement between the City of Chicago and the Illinois Central Railroad Company, dated November 20, 1895 ..	1040
(4) A permit from the Secretary of War and accompanying plat, dated July 24, 1895	1056
(5) A permit from the Secretary and accompanying plat, dated November 30, 1895	1058
Certificate of Judge	1058
Notice of Petition for Appeal	1058
Petition for Appeal	1060
Assignment of Errors	1061
Appeal Bond	1063
Citation	1065
Stipulation	1066
Clerk's Certificate	1067
Stipulation as to Printing	1068

PROCEEDINGS IN UNITED STATES CIRCUIT COURT OF APPEALS.

Order extending time to file transcript of record	1073
Appearance of Illinois Central Railroad Co.	1074
Orders setting case for hearing and designating Judge Grosscup to sit in said court	1075
Case taken under advisement	1076
Opinion of Court of Appeals	1077
Dissenting opinion of Judge Woods	1085
Decree of Court	1088
Affidavit of Josiah L. Lombard showing value of property in controversy to exceed \$1,000	1089
Notice of motion for appeal by People of State of Illinois	1090
Motion for appeal by People of State of Illinois	1091
Assignment of errors by People of the State of Illinois	1093
Allowance of Appeal	1095
Appeal bond	1095
Clerk's certificate	1097
Citation and return filed in this court	

For Maps see Book of Exhibits.

IN THE
CIRCUIT COURT OF THE UNITED STATES
FOR THE NORTHERN DISTRICT OF ILLINOIS,
NORTHERN DIVISION.

THE PEOPLE OF THE STATE OF
ILLINOIS UPON THE RELA-
TION OF GEORGE HUNT, AT-
TORNEY GENERAL.

vs.

Information.
In Equity.

THE ILLINOIS CENTRAL RAIL-
ROAD COMPANY, THE CITY
OF CHICAGO, AND THE
UNITED STATES OF AMERICA.

THE CITY OF CHICAGO.

vs.

Cross-Bill.

THE ILLINOIS CENTRAL RAIL-
ROAD COMPANY, THE
UNITED STATES OF AMERI-
CA, AND THE PEOPLE OF THE
STATE OF ILLINOIS.

1 Pleas in the circuit court of the United States of America for the northern district of Illinois, held at the United States court rooms, in the city of Chicago, in the district aforesaid, before the Hon. Henry W. Blodgett, judge of the district court of the United States for the northern district of Illinois, on Monday, the twenty-fourth day of September, in the July term of said court, in the year of our Lord one thousand eight hundred and eighty-eight, and of our Independence the one hundred and thirteenth year.

WM. H. BRADLEY, Clerk.

The People of the State of Illinois upon the
Relation of George Hunt, Attorney General,

Information.

vs.

The Illinois Central Railroad Company, The
City of Chicago, and The United States
of America.

In Equity.

The City of Chicago

vs.

The Illinois Central Railroad Company, The
United States of America, and The People
of the State of Illinois.

Cross-Bill.

Northern District of Illinois, ss.:

Be it remembered that on the seventh day of May, in the adjourned May term of said court, 1883, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

of May 7,

ORDER.

The People of the State of Illinois ex Rel.	} In Chancery.
James McCartney, Attorney General,	
vs.	
Illinois Central Railroad Company et al.	

Now come the parties, by their solicitors, and on motion of Mr. Ayer, solicitor for said railroad company, leave is hereby given him to file and docket in this court a transcript of record from the circuit court of Cook county, Illinois, in this cause without prejudice.

On the same day, to wit, on the seventh day of May, 1883, came the Illinois Central Railroad Company, by its solicitor, and filed in the office of the clerk of the circuit court of the United States for the northern district of Illinois, at Chicago, in said district, its bond for costs and transcript of record from the circuit court of Cook county, Illinois, in said entitled cause; which said bond and transcript are in the words and figures following, to wit:

2

BOND FOR COSTS.

United States of America, Northern District of Illinois, ss:

Circuit Court, — Term, A. D. 18—.

People of the State ex Rel. of J. McCartney,	} Information.
Attorney General,	
vs.	
Ills. Cent. R. R. et al.	

I enter myself security for costs in this cause and promise to pay all costs which may accrue to the opposite party in this action or to any of the officers of this court, and in default of payment by the def't R. R. of any costs ordered or adjudged to be paid by it hereby agree and stipulate that

1 for Costs.
May 7, 1883

execution may issue against my property for any costs taxed against it.

Bond for Co
filed May 7, 1

Dated this 7th day of May, A. D. 1883.

B. F. AYER.

(Endorsed:) Filed May 7th, A. D. 1883. W. H. Bradley,
clerk.

UNITED STATES OF AMERICA.

State of Illinois, Cook County, ss:

Pleas before the Honorable Thomas A. Moran, one of the judges of the circuit court of Cook county, at a term thereof begun and held at Chicago, in said county and State, on the third Monday (being the nineteenth day) of March, in the year of our Lord one thousand eight hundred and eighty-three and of the Independence of the United States the one hundred and seventh.

Pleas Cook Cou
ty Circuit Cou

Present: Honorable Thomas A. Moran, one of the judges of the circuit court of Cook county, State of Illinois; L. L. Mills, State's attorney; Seth F. Hanchett, sheriff.

Attest: JACOB GROSS, Clerk.

Be it remembered that heretofore, to wit, on the 1st day of March, A. D. 1883, the people of the State of Illinois at the relation of James McCartney, attorney general of said State, filed a certain information in said court and caused to be issued out of and under the seal of said court the people's writ of summons, directed to the sheriff of Cook county to execute; which said information and writ, together with the sheriff's return thereon endorsed, are in the words and figures following, to wit:

- 3 In the Circuit Court of Cook County, State of Illinois,
March Term, A. D. 1883.

People, etc., ex Rel. James McCartney, }
Attorney General, }
vs. } In Chancery.
Illinois Central Railroad Co., City of Chi- }
cago, and The United States of America. }

22, filed
1883.

INFORMATION. Filed March 1st, 1883.

State of Illinois, Cook County, ss:

In the Circuit Court of Cook County, in Chancery.

To the honorable the judges of said court:

James McCartney, the attorney general of the State of Illinois, who brings this suit for and in the name and by the authority of the people of the State of Illinois, comes now here and in behalf of the people of said State gives this honorable court to understand and be informed that the United States of America, having acquired the tract of country or territory northwest of the Ohio river by cession from the State of Virginia, on condition, however, that there should be formed out of said territory not less than three nor more than five States, and that as soon as any of such States should have 65,000 free inhabitants therein they should be admitted into the union of States on an equal footing with the original States in all respects whatever, did, in the year 1818, carve out of said territory and admit into the Union the State of Illinois, the boundaries whereof were defined by Congress and accepted and ratified by said States in its original Constitution as follows: Beginning at the mouth of the Wabash river, thence up the same and with the line of Indiana to the northwest corner of said State, thence east with the same line of the same State to the middle of Lake Michigan, thence north along the middle of said lake to the north latitude forty-two degrees and thirty minutes, thence west to the middle of the Mississippi river, and thence down along the middle of that river to its confluence with the Ohio river, thence up the latter river along its northwestern shore to the beginning; and that by virtue of said act of cession, the conditions thereof, and the performance of those conditions as

Information, file
March 1, 1883.

above recited the State of Illinois acquired as well the jurisdiction over as the soil of the bed of Lake Michigan within the boundaries of the State, and the right, title, power, and authority in, to, and over the same, absolutely and completely, subject only to the right of the United States to supervision over the navigable waters of said lake so far as may be necessary in exercising its right to regulate commerce with foreign nations and among the several States; that thus possession the sovereign power over and proprietorship of the above-described portion of Lake Michigan and the bed thereof, the State of Illinois has the right to protect and defend the same from encroachment and to sue for relief in respect of any such encroachment or infringement of its sovereign or proprietary rights therein, and this honorable court is further informed that the city of Chicago is situated upon the southwestern shore of Lake Michigan, within the boundaries above set forth, and now includes within its limits, with other territory, fractional sections three, ten, fifteen, twenty-two, twenty-seven, and thirty-four, in township thirty-nine north, range fourteen east, of the third principal meridian, said fractional sections bordering upon the lake, which forms the eastern boundary of said sections and of said city; that for a considerable time after the organization of the city the harbor was considered to be and was the Chicago river, a small, narrow stream opening into Lake Michigan near the center east and west line of said section ten, and such stream and the branches thereof did for a long time form the only harbor of the city, upon which all the shipping arriving from other parts of Lake Michigan and the other navigable waters of the United States were moored or anchored, and along the shores of which were all the docks and wharves of the city; but in more recent years the growth of the city in population, business, and commerce has required a larger and more convenient harbor, and the United States, in view of such expansion and growth and the probable continuance and increase thereof, has commenced the construction of a system of breakwaters and other harbor protections in the waters of the lake outside of the limits of the city and in front of the fractional sections above enumerated. In the prosecution of this work by the United States there has been constructed a line of breakwaters or cribs of wood and stone from the point where the south shore of the Chicago river meets the shore of the lake, thence running several thousand feet east and directly into the lake, thence turning such line

tion filed
1, 1883

due south and extending the same about one mile, and thence turning southwesterly and approaching the shore near the south line of said fractional section fifteen, with openings in said piers or lines of cribs for the entrance and departure of vessels, thus enclosing a large tract of the lake for the uses of shipping and commerce, to be used and known as the harbor of Chicago; that such outer harbor so enclosed comprises a space of about one mile and one-half in length from north to south, and of a width from east to west varying from one thousand to four thousand feet; that as the commerce and shipping making use of the harbor of Chicago still further expands and increases in the future such harbor will be still further extended towards the south, and it is believed and expected that the necessities of commerce will soon require a large portion of the entire lake front of the city south of the Chicago river, and in the near future the portion of the lake in front of fractional section twenty-two and for a convenient and reasonable distance from the shore will be in demand for such purpose, as the front of fractional sections ten and fifteen are now occupied and used therefor; and this honorable court is further informed that the proper authorities of the United States have in a general way indicated a plan for the improvement and use of that portion of the harbor of Chicago which has been enclosed as aforesaid, by which a considerable portion of the enclosure is devoted to a harbor of refuge, so called, or outer harbor, where ships may ride at anchor in security and within the protecting walls, and a considerable other portion of such enclosure nearer the shore of the lake is by such plan proposed to be devoted to wharfs and piers alongside of which ships may load and unload and upon which warehouses may be constructed and other structures erected for the convenience of the operations of lake commerce.

That the works already constructed and in contemplation by the United States have in view simply the necessary structures and appliances for the protection of shipping by the erection of outer walls or piers of stone and wood, leaving the further development and improvement of the harbor to be carried on in accordance with the general designs furnished by the officers of the United States, but by the proprietors of the soil of the harbor and those having the right to enter upon the harbor for the purpose of making such erections and improvements, the intention of the United

States being to confine its operations to the protecting and fostering of commerce and navigation in the discharge of its duty of regulating commerce, leaving, as it is bound to do, the furnishing of harbor facilities to those having the right and power to provide them; and your informant believes and therefore states that by the joint efforts and labors of the United States and the owners, as above outlined, there is to be provided in the lake in front of said city an artificial harbor of a size and capacity sufficient to accommodate the lake commerce of the largest city upon the lakes, and the largest in the number of ships entering and departing as well as in the tonnage thereof in the United States.

Information, file
March 1, 1884.

And this honorable court is further informed that the United States, by act of Congress approved on September 20th, 1850, granted to the State of Illinois for the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers with a branch of the same to Chicago, on Lake Michigan, and another from the town of Galena, in said State, to Dubuque, in the State of Iowa, a right of way through the public lands, with the right to take necessary materials of earth, stones, timber, etc., for the construction of said road, provided that such right of way should not exceed one hundred feet on each side of the length thereof, and in addition to such right of way there was also in and by the same act granted to the State of Illinois for the purpose aforesaid every alternate section of land designated by even numbers for six sections in width on each side of said road and branches, with other conditions, limitations and provisions as to the construction of the road as the same are in such act set forth.

That for the purpose of executing the trust confided to the State of Illinois by the act of Congress above mentioned the Illinois Central Railroad Company was incorporated by the legislature of Illinois by an act approved on the 10th day of February, 1851, and the right of way, together with the land granted as aforesaid by the United States to the State of Illinois, was conferred upon the Illinois Central Railroad Company for the purposes of constructing a railroad on the routes above expressed; that in addition to the right of way and the lands received from the United States the State of Illinois also granted to said railroad com-

ation, filed
h 1, 1883.

pany, for the purpose of constructing bridges, embankments, station grounds, engine-houses, shops, and other buildings necessary for the construction, completing, altering, maintaining, preserving, and complete operation of such road, all such lands, water, materials, and privileges belonging to the State throughout the length of said road, with authority to acquire lands for the purposes aforesaid by the exercise of the right to eminent domain, such grant of lands and of such right of way 200 feet in width being ceded and granted to said corporation for the only and sole purpose of surveying, constructing, completing, and altering and maintaining and operating said road and branches as in such act provided, with the provision that nothing in said act contained should authorize said company to make a location of their track within any city without the consent of the common council of said city.

And this honorable court is further informed that by an act of the legislature of the State of Illinois approved June 22, 1852, said Illinois Central Railroad Company was empowered and authorized to locate, construct and operate a lateral branch and track from its eastern as then located at or near Twelfth street, in the city of Chicago, to the south branch of the Chicago river on such terms and conditions and in such manner as might be stipulated between the common council of the city of Chicago and said company; that in pursuance of the powers and privileges granted to said corporation in the acts above referred to and for the purpose of complying with the limitations expressed in the charter of said company and locating the track of said road within the corporate limits of the city of Chicago, said Company procured from the common council of the city of Chicago an ordinance, which was passed on the 14th day of June, 1852, providing that permission should be granted to the said railroad company to lay down, construct, and maintain within the limits of the city of Chicago and along the margin of the lake adjacent to the same a railroad with one or more tracks, and to have the right of way and all powers incident thereto and necessary therefor upon certain terms and conditions therein expressed, among which conditions and provisions were the following, to wit: That the said road should enter the city at or near the intersection of its southern boundary with Lake Michigan, and following the shore on or near the margin of said

Information, 11
March 1, 1882.

lake northerly to the southern boundary of the open space known as Lake park, in front of canal section 15, and continue northerly across the open space in front of said section 15 to such grounds as said company might acquire between the northerly line of Randolph street and the Chicago river, in Fort Dearborn addition to said city, upon which ground shall be located the depot of such railroad company within said city and such other buildings, shops, and other apparatus as might be necessary and convenient for the business of the company, said city in and by said ordinance expressly disclaiming any undertaking to obtain for said railroad company any right of way or other right, privilege or easement not in the power of said city to grant or confer and disclaiming all liability or responsibility for the acts of said company.

That in and by said ordinance the consent of the city was given to said railroad company to enter and use in perpetuity for its line of road and other works necessary to protect the same from the lake a width of 300 feet from the southern boundary of said public ground near Twelfth street to the northern line of Randolph street, the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue and parallel thereto, the said company agreeing, in consideration of the benefits and advantages secured by said ordinance, to erect and complete within three years after the acceptance of said ordinance and to forever maintain a continuous wall or structure of stone masonry or brick-work or other sufficient material of regular, sightly appearance, and not to exceed in height the general level of Michigan avenue from the northern side of Randolph street to the southern point of Lake park, before mentioned, at a distance of not more than 300 feet east from and parallel with the western or inner line pointed out for said company, as specified in section 2 of said ordinance, and shall continue said works to the southern boundary of the city at such distance outside of the track of the said road as may be expedient, which structure and works were to be of sufficient strength and magnitude to protect the entire front of the city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan.

That there were other and further provisions, restrictions,

100, filed
1, 1883.

and limitations upon the mode of using the right of way so authorized to be taken by the city aforesaid, all of which will more fully and at large appear by reference to the ordinance or a copy thereof, which is to be produced at the hearing of this cause and which your informant hereby makes a part of this information.

That such ordinance of the city of Chicago of June 14, 1852, was accepted by the said railroad company, and a contract in solemn form was executed between the city of Chicago, of the one part, and the Illinois Central Railroad Company, of the other part, by which each bound itself to the other to fulfill the requirements, provisions, conditions, and limitations in said ordinance contained

That afterwards and on the 10th day of September, 1855, a further ordinance was procured from the city of Chicago by which the consent of said city was secured to the use by said railroad company of that piece of ground lying west of the line prescribed to said railroad company next to the north line of Randolph street and described as the piece of land between the north line of Randolph street and the west line of the railroad right of way and a third line extending from a point in the north line of Randolph street 300 feet east of the west line of Michigan avenue, thence by a straight line to a point in the east line of the railroad right of way 200 feet south of the north line of Randolph street, and that afterwards and on the 15th day of September, 1856, the further permission was secured from the city of Chicago, so far as said city had a right to grant the same, to the Illinois Central Railroad Company entering upon and using for its line of railroad and other works the space between the then line of the breakwater 700 feet south of the north line of Randolph street extended, and running thence on a straight line to the southeast corner of its then breakwater, and thence to the river, and that while the city of Chicago had no power or authority to cede or grant to said railroad company any right of way over any of the public lands or any portion of the bed of Lake Michigan, and having only the power of giving its permission to the entry within the limits of the city of the railroad company with its line of road and works appertaining thereto, nevertheless said railroad company, assuming or pretending to assume that the grant obtained from the city of Chicago conferred on

Information, filed
March 1, 1883.

said railroad company the authority to use the public lands belonging to the State and in the bed of Lake Michigan outside and beyond the prescribed right of way 200 feet in width, it did, after the passage of the two ordinances last above mentioned, enter upon and it has since used the two triangular pieces of land next to the north line of Randolph street above described, and which are outside of and beyond the prescribed 200 feet within which the limits of the right of way are determined by the charter of said railroad company and the law of the State of Illinois: that the breakwater and the protection from the waters of the lake mentioned in said ordinance was constructed by said railroad company, substantially in accordance with the terms of the contract entered into between the railroad company and the city, from the north line of Randolph street south along the front of said city and 200 feet east of the line prescribed as the west limit of said right of way and parallel thereto, which said tract of ground 200 feet wide and the triangular strip above described, together with other portions of the body of the lake, as will be hereafter mentioned, said railroad company has entered upon and is now using as its own property for the purpose of operating its said railroad within the limits of said city; and this honorable court is further informed that in the year 1852, the date of the ordinance of the city of Chicago above referred to and the date of the entry of the said Illinois Central Railroad Company within the limits of the city of Chicago and of the extension of said road to the Chicago river, the so-called open ground between Randolph street and Twelfth street was, to a considerable extent, under the waters of the lake; that Lake park, so called, had extended from Randolph street to Park row, near Twelfth street, and from Michigan avenue east to a line beyond the west line of the railroad right of way; but in the year 1852 the waters of the lake had advanced upon the shore until, by the process of abrasion, the water reached nearly to Michigan avenue; but since the year 1852 the city of Chicago has caused the Lake park to be restored by filling in, until now Lake park is a solid body of land extending from Michigan avenue to the railroad tracks and from Randolph street to Park row.

That in the year 1822 township 39 north, range 14 east, of the third principal meridian, was surveyed and marked out under the authority of the United States pursuant to the

ation, filed
th 3, 1883.

laws thereof, and at that time, according to such survey, the south line of fractional section 10 met the shore of Lake Michigan 1,141 feet from the west line of said section; that fractional section 15, adjoining section 10 on the south, was, according to the same survey, 1,141 feet wide on its northern line and 1,482 feet wide on its southern line, the shore of the lake making a nearly straight line between the north and south lines of said section; that a map or sketch of the shore of Lake Michigan between the river and Twenty-second street is hereto attached, which shows with approximate accuracy the shore line as it was marked down on the survey of 1822 and as it exists at the present time, and also various changes which have taken place in the shore line between those dates. Upon this map the line of the survey of 1822 is marked in blue. A sand bar, marked in red, extended at that time and up to 1836 from the river to a point several hundred feet south of the south line of section ten, which sand bar was not surveyed in 1822, the old channel of the river, which at that time turned south at the northern limit of the sand bar and opened into the lake at the southern limit thereof, marking the eastern limit of the survey of 1822. The yellow line of said map in front of section 15 shows the shore line as marked down on the plat of the subdivision of that section by the canal commissioners in 1836, and such yellow line is properly the eastern boundary of Lake park, so called.

In the year 1852, at the time of the entry of the Illinois Central railroad into the city, the water had encroached upon the land, so that in front of section 15 the shore line was at the red line on said map and in front of section 10. The shore line in 1852 was not far from Michigan avenue, as shown on the plat of 1839 and represented on this map by the black line, and from these two last-mentioned lines to the outside breakwater, shown on the map, the water has been filled with earth and other materials and solid ground made; all of which has been done and all of such ground is occupied by the Illinois Central Railroad Company, excepting Lake park between Michigan avenue and the said right of way, which was filled by and is now in the possession of the city of Chicago.

And this honorable court further is informed that in the year 1869 the Illinois Central Railroad Company procured to be passed by the legislature of the State of Illinois an act, which took effect by the passage thereof over the veto of the

governor of the State on the 16th of April, 1869, in and by which all the right, title, and interest of the State of Illinois in and to so much of fractional section 15, township 39 north, range 14 east, of the third principal meridian, in said city of Chicago, as was situated east of Michigan avenue and north of Park row and south of the south line of 10 Monroe street and west of a line running parallel with and 400 feet east of the west line of Michigan avenue was granted to the city of Chicago, with power to sell the same and to use the proceeds of such sale as a park fund, to be distributed by the common council and devoted to park purposes in the city of Chicago; and it was further provided in said act that the right of the Illinois Central Railroad Company under the grant from the State in its charter and under and by virtue of the appropriation, occupancy, use, and control, and the riparian ownership incident to such grant, appropriation, occupancy, use, and control in and to the lands, submerged or otherwise, lying east of the line running parallel with and 400 feet east of the west line of Michigan avenue, in said fractional sections 10 and 15, should be confirmed, and all the right and title in the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile and between the south line of the south pier, extended eastwardly, and a line extended eastward from the south line of lot 21 and south of and near the round-house and machine shops of said company should be granted in fee to the said Illinois Central Railroad Company, its successors and assigns: Provided, however, that the fee to said land should be held by said company in perpetuity, and that said company should not have the power to grant, sell, or convey the fee to the same; and provided also that nothing contained in said act should authorize obstructions to the Chicago harbor or impair the public right of navigation. The said act further provided that the right and title of the State of Illinois in and to the lands, submerged or otherwise, lying north of the south line of Monroe street and south of the south line of Randolph street and between the east line of Michigan avenue and the track and the roadway of the Illinois Central Railroad Company, being parts of said sections 10 and 15, should be granted in fee to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their

Information, **ib**
March 1, 1888.

100, filed
1, 1883.

successors and assigns, for the erection thereon of a passenger depot and for such other purposes as the business of said company might require. In consideration of said grant of the three blocks of land last mentioned to said three railroad companies the said companies were to pay to the city of Chicago the sum of \$800,000; all of which will more fully and at large appear by reference to the said act of 1860.

Your informant charges that no action was had or taken upon said grant, and that said act was on the 15th day of April, 1873, repealed by an act of the legislature of said State of Illinois, which said act was approved by the governor on the date last aforesaid; that said repeal was effected before possession had been taken of the land so purported to be granted as aforesaid and before any act had been done upon said land by virtue or in pursuance of the power and authority given to said railroad companies by said act.

And your informant charges that the repeal of said act had the effect to withdraw and take from said Illinois Central Railroad Company and revest in the State of Illinois all title which passed from said State to said railroad company by the act of 1869 above recited.

That said act of 1869, while purporting to grant a considerable portion of the body of Lake Michigan to the Illinois Central Railroad Company, was inoperative and ineffectual for that purpose for want of capacity in the State to grant and in said railroad company to accept and receive the same, as by reference to its charter, passed in 1851, as above recited, will fully appear, and said act was also inoperative by reason of the peculiarity in the terms of the grant, the legislature by said act purporting to grant the fee to said railroad company, and by the same act expressly withholding and withdrawing from said railroad company the power to grant, sell, or convey the same, or, if the said act is construed so as to pass the title to said submerged land, it was a title subject to be resumed by the State which gave it, and there was no consideration for said grant, and your informant insists that the same was withdrawn and revested in the State of Illinois by the repeal of the act of 1873; that the said act of 1869 contained little, if anything, of legislation except the grants above recited; that the object and intention of the legislature in passing said act of repeal was to undo what had been done

by act of 1869, to withdraw what had been given by that act, and to revest in the State whatever title had been divested thereby.

Information, filed
March 1, 1883.

And this honorable court is further informed that the right of the Illinois Central Railroad Company in the submerged land in front of fractional sections 10 and 15 aforesaid are confined to a strip of land, two hundred feet in width, extending from the north line of Randolph street south to the so-called open ground near Twelfth street, the east line of such strip being 600 feet and the west line of such strip being 400 feet east of the west line of Michigan avenue and parallel therewith, and such was the construction placed upon its grants and privileges by said company at the time of its first use and acceptance thereof.

The road of said company was extended to Randolph street soon after the passage of the ordinance by the city council of Chicago, and the breakwater in front of its tracks was constructed six hundred feet east of the west line of Michigan avenue and parallel therewith, leaving a width of two hundred feet between such breakwater and the western limit of its right, as prescribed by the said ordinance, and that, while the ordinance purported to authorize the use of three hundred feet in width, such attempt was clearly nugatory, since the council had been invested with no power to enlarge the right of way given by the State over its domain beyond the width of two hundred feet, and this informant charges that the same is true of the triangular strips of land near the north line of Randolph street above referred to as having been granted or attempted to be granted by the city to the railroad company and which the railroad company entered upon and occupied and is now occupying; the city had no power to grant or to authorize the use and occupation of the same.

12 That the location of the roadway and two hundred feet right of way should be considered as having been made when the road was constructed and no enlargement of such location should be permitted without the authority of the State, and that the right of way and all right of occupation of the land of the State in front of the two last-mentioned sections should be confined to the two hundred feet strip between the land acquired by the company north of

tion, filed
b 1, 1883.

Randolph street and the open ground near Twelfth street as the same was originally appropriated and used by said company.

And this honorable court is further informed that the said railroad company, after its entrance into the city, began a system of encroachment upon the domain of the State, the first indication of which was the procuring of the passage of the ordinances purporting to grant in perpetuity the two triangular strips of ground near Randolph street and which it immediately entered upon, pretending to assume the right of the city to grant the same, and is now using the same under the same pretense.

That it soon after begun filling with earth that portion of the bed of the lake in front of fractional section ten north of Randolph street, under the claim that, having acquired the land on the shore of the lake, the so-called riparian rights enabled it to advance the shore and its own land into the lake at its pleasure, or upon some other unfounded assertion of right, but that this encroachment upon the property belonging to the State was, after it had proceeded to a considerable extent, arrested by the action of the United States in suing out of the circuit court of the United States for the northern district of Illinois an injunction prohibiting the continuance of the encroachments upon the waters of the lake; which injunction remained in force until dissolved by the said railroad company entering into a stipulation having the substantial effect of the injunction.

That the said railroad company not long ago entered upon the bed of the lake in front of its breakwater and commenced to fill the same with earth, with the view of using the same for railroad purposes, and this was done under the claim that the ordinance of the city above mentioned conferred upon it the right to use land three hundred feet in width, and that it was now only occupying two hundred feet in width, but this encroachment was also prevented by the action of the officers of the United States whose request to the railroad company was sufficient without the necessity of suing out an injunction.

That the said railroad company has begun and is now about prosecuting the work of filling with earth and other

Information, filed
March 1, 1883.

materials that portion of the bed of Lake Michigan in front of fractional section fifteen, both north of and south of lot twenty-one, near its round-house mentioned in said act of the legislature of Illinois passed in 1869; that it is proceeding to sink lines of cribs of earth and stone in the lake in front of said section fifteen, and inclosing within such lines large areas of the lake, which it then fills in with earth and other material in order to appropriate the ground so made and to use the same for railroad or other purposes; that your informant

is informed that it justifies or pretends to justify such proceedings under the act of 1869 so far as they are carried on north of its round-house and by some claim of riparian rights, so far as they are carried on south of its round-house; that it also asserts that by its charter of 1851 it was empowered to use all the land and domain of the State which it might ever after need or desire for railroad purposes, while the truth and the fact is that it has long ago made the location of its road, and, as your informant believes, has caused the same to be recorded in the proper offices, as the law requires, and its power to use the public domain has been long exhausted; and in addition thereto such enlargement and increase of its lands and facilities are not required for its own railroad purposes, but that other railroad companies have leased from the Illinois Central then use of its tracks, grounds, and structures, from which a large rental is derived, and without such facilities so used and enjoyed by other railroad companies its occupancy of the public grounds could be very much curtailed instead of being enlarged; that the grant contained in its charter upon which reliance is placed was not made to enable it to lease the granting privileges to other railroad companies, but for its only and sole use; that some contract or lease or other arrangement has been made by it with the Michigan Central Railroad Company, the New York, Chicago & St. Louis Railroad Company, the Baltimore & Ohio Railroad Company, the exact terms of which arrangements are unknown to your informant, but they result in the use of track room and other facilities by means of which such roads enter the city of Chicago.

And this honorable court is further informed that the said Illinois Central Railroad Company claims that the law of 1869, above referred to, vested in it the absolute title to the submerged land therein mentioned, and that such title has

nation, filed
Feb. 3, 1883.

not been divested by the repeal of said act or otherwise. It further claims that the charter of 1851 granted the use of all the public domain of the State in front of its tracks on the shore of Lake Michigan, in the city of Chicago, so far as the same is needed or desired for railroad purposes, not only for its own use, but also to lease to other railroad companies.

It also claims that the grant of the right of way contained in the charter of 1851, and the location thereof by the railroad company, operated to convey to the company the fee-simple title to such right of way, and, such right of way being upon the shore of the lake in the city of Chicago, such ownership so claimed carried with it the so-called riparian rights under which it could fill the lake and extend the shore into the waters thereof to an indefinite extent.

It also claims that it has purchased from the private owners certain portions of the shore of the lake, and that the ownership acquired in that way carries with it the so-called riparian right of making available the bed of the lake by filling the same with earth and other materials, thus making solid ground of the bed of a navigable lake of vast extent and appropriating the same under the name of the exercise of riparian rights.

That the said railroad company threatens to enforce
14 its said claims by the use and occupation of the bed of the lake in front of said sections ten and fifteen southward from the mouth of the Chicago river and for an indefinite distance into the lake, and, in pursuance of such claims and threats and of other claims, has entered upon and is occupying the triangular strips near Randolph street, as above set forth; it has entered upon and is occupying a considerable tract of land in front of said section ten, between the Chicago river and Randolph street, east of the land acquired by it for railroad purposes, and that at the time of its entry upon such triangular strips and the domain in front of said section ten the same and all of it was covered by the waters of Lake Michigan, and your informant claims that it was and is the property of the State; that, in pursuance of its claims and threats above set forth, said company has entered upon the bed of the lake south of Randolph street extended east and claims the right and threatens to exercise it of using the bed

of the lake from Randolph street extended to the south line of said section fifteen, and is now engaged or threaten to engage in filling portions of the lake within the lines last mentioned.

Information, 2
March 1, 1881.

And this honorable court is further informed that notice has been given by your informant, on behalf of the people of the State of Illinois, to the Illinois Central Railroad Company of the rights of the State, and the company has been required by the same authority to desist from the encroachments above set forth, but the notice is disregarded and the title of the State is openly disputed by the company, and the railroad company openly and publicly gives out that it has the right to use the bed of the lake as it now is beginning to use the same. Your informant states that these claims, pretenses, and public outgivings of the said railroad company are a great and irreparable injury to the State of Illinois as a proprietor and owner of the bed of the lake, throwing doubts and clouds upon its title thereto and preventing an advantageous sale or other disposition thereof.

That the entry upon and the use and occupancy of the public domain as above set forth is a purpresture and a public nuisance, and should be enjoined by this honorable court.

That the title to this tract of soil is held by the State for the people thereof, and as a trustee it is bound to protect the interests and the rights of the beneficiaries, as well the said Illinois Central Railroad Company as all the public of Illinois, and your informant calls upon this court to adjust and determine the title to the portion of the lake in question and to limit and determine the rights therein and thereto of the Illinois Central Company, if any it has.

Your informant states that the right to and the ownership of the soil of the harbor of Chicago is of immense and incalculable value; that the ownership thereof and the right to control the same, even subject to the rights of the United States, should not belong to any single individual or association of persons or to any private corporation; that the whole public is interested therein, and a private ownership thereof would constitute a very dangerous menace to the commercial interests of the whole body of the people, not only
15 in this State, but throughout the northern portion of the United States.

ion, filed
1883.

Your informant states that the injury from the actions and doings of the Illinois Central Railroad Company is irremediable at law, and the State is only relievable in equity, and he makes parties defendant hereto the said railroad company, The United States of America, and The City of Chicago, both of which have or claim some rights or interests in the subject hereof.

To the end, therefore, that The Illinois Central Railroad Company, The United States of America, and The City of Chicago may answer this information without oath, their answer on oath being waived, and that the title of the State of Illinois to the bed of Lake Michigan outside the said two hundred feet right of way of the Illinois Central Railroad Company may be established and confirmed; that the claims of the said railroad company thereto under the various grants and ordinances above referred to may be declared to be unfounded and without force, and that the clouds and doubts cast thereby upon the title of the state may be removed; that the boundaries between the land of the United States and of the City of Chicago and of the state may be ascertained and the shore line and navigable water determined; that the said Illinois Central Railroad Company may be enjoined and restrained from filling any of the bed of the lake outside its said right of way, from sinking cribs or constructing piers thereon or in any manner encroaching upon the domain of the state as the same is in this information asserted to exist, and that the rights of said railroad company under the various laws of the State may be ascertained and declared; that the structures and erections, all filling, piling, and crib-work and pier constructions made by the Illinois Central Railroad Company upon or in the said domain of the State, excepting within its said two hundred feet right of way, may be directed to be removed and such domain restored to the condition in which it was before such encroachments were made, and that the State of Illinois may be declared to have the sole and exclusive right to develop the harbor of Chicago by the construction of docks, wharves, etc., and to dispose of such rights at its pleasure for the interest of the public, and that such other and further or different relief may be granted as is agreeable to equity—

May it please the court to grant the writ of summons, di-

rected to the sheriff of Cook County, by which the Illinois Central Railroad Company and the City of Chicago may be directed to appear and answer this information and to abide by the decree herein, and may it please the court to grant the writ of injunction by which said defendants may be enjoined, pending the suit, as they are above prayed to be perpetually enjoined; and your informant will ever pray, etc.

JAMES McCARTNEY,

Attorney General, Illinois.

WILLIAMS & THOMPSON, Of Counsel.

Information, filed
March 1, 1883.

16 Filed in Circuit Court March 1, 1883.

JACOB GROSS, Clerk.

(Here follows map.)

State of Illinois, Cook County, ss:

The people of the State of Illinois to the sheriff of said county, Greeting:

We command you that you summon the Illinois Central Railroad Company and the City of Chicago, if they shall be found in your county, personally to be and appear before the circuit court of Cook County on the first day of the term thereof, to be holden at the court house, in Chicago, in said Cook County, on the third Monday of March, A. D. 1883, to answer unto the people of the State of Illinois at the relation of James McCartney, attorney general of said State, in his certain information filed in said court on the chancery, side thereof, and have you then and there this writ, with an endorsement thereon in what manner you shall have executed the same.

Summons, March
1, 1883.

[Seal.] Witness Jacob Gross, clerk of said court, and the seal thereof, at Chicago, in said county, this 1st day of March, A. D. 1883.

JACOB GROSS, Clerk.

Endorsed.

Rec'd at — o'clock m., Mar. 1, 1883.

P'd 2.00. Seth F. Hanchett, sheriff.

rn, March 6,
L

Served this writ on the within-named the City of Chicago, by delivering a copy of this writ to Carter H. Harrison, mayor of said city, this 2d day of March, 1883.

SETH F. HANCHETT, Sheriff.
By J. H. BURKE, Deputy.

Served this writ on the within-named defendant, the Illinois Central Railroad Company, by leaving a copy thereof with W. K. Ackerman, president of said company, March 3rd, 1883.

SETH F. HANCHETT, Sheriff.
By D. W. NICKERSON, Deputy.

Filed this 6th day of M'ch, A. D. 1883.

JACOB GROSS, Clerk.

wer of I. C. R.
Co., filed Apr.
1883.

And thereupon, on the 7th day of April, 1883, the said defendant, the Illinois Central R. R. Co., by its solicitors, filed in said cause its certain answer in words and figures following, to wit:

17 State of Illinois, County of Cook:

In the Circuit Court thereof.

The People of the State of Illinois ex rel.
James McCartney, Attorney General,

vs

The Illinois Central Railroad Company
et al.

Information.

The Separate Answer of the Illinois Central Railroad Company, One of the Defendants, to the Information in the Above-Entitled Cause.

This respondent, now and at all times hereafter saving and reserving any and all rights and advantages of exception which may be taken to the many errors, uncertainties, and other imperfections in the said information contained, for answer thereto or to so much and to such parts thereof as it is advised it is material and necessary to make answer unto, says that it admits that the State of Illinois is a part of

the territory lying northwest of the Ohio river, acquired by the United States of America by cession from the State of Virginia, and that said State was admitted into the Union on an equality with the original States in the year 1818, with boundaries fixed and defined substantially as set forth in said information, and that thereupon the title to the bed of Lake Michigan within the said boundaries became vested in the State, with full power of disposition and alienation, subject, however, to the rights and privileges of riparian owners and also to the power to regulate commerce vested by the Federal Constitution in the Congress of the United States.

Answer of L.
R. Co., filed
7, 1883.

And this respondent, further answering, admits that the City of Chicago is situated within the boundaries of the State of Illinois, upon the margin of Lake Michigan, near to its southwestern extremity, and that it includes within its limits, with other territory, fractional sections three (3), ten (10), fifteen (15), twenty-two (22), twenty-seven (27), and thirty-four (34), in township thirty-nine (39) north, range fourteen (14) east, of the third principal meridian, which fractional sections originally bordered upon said Lake Michigan, as stated in said information; but this respondent insists and states it to be true that the boundaries of the said City of Chicago and the limits of its jurisdiction have not been at all times the same; that the boundaries of the City of Chicago were, by the first section of an act of the legislature of the said State of Illinois entitled "An act to reduce the laws incorporating the City of Chicago and the several acts amendatory thereof into one act and to amend the same," approved and in force February 14, 1851, fixed and determined, which said section of said acts is as follows:

"Section 1. Be it enacted by the people of the State of Illinois represented in the General Assembly, that the district of country in the County of Cook and State of Illinois, known and described as follows, to wit: All that part of township thirty-nine, north range fourteen, east of the third principal meridian, which lies north of the north line of 18 sections twenty-seven, twenty-eight, twenty-nine and thirty of said township, and the east half of section thirty-three and fractional section thirty-four in township forty, north range fourteen east, is hereby erected into a city, by the name of the 'City of Chicago' and by the second section of said act it was provided amongst other things, that

er of I. C. R.
to, filed Apr.
81.

the inhabitants of said city should be a corporation by the name of the 'City of Chicago' and, by that name, sue, and be sued," etc.

This respondent further states that by a subsequent act of the legislature of the State of Illinois, approved and in force on the 28th day of February, A. D. 1854, entitled "An act amendatory of an act entitled 'An act to reduce the law incorporating the City of Chicago and the several acts amendatory thereof into one act, and to amend the same, approved February 14, 1851,'" it was provided in the first section thereof as follows: "That the corporate limits and jurisdiction of the City of Chicago shall be, and the same are hereby, extended to Lake Michigan, and shall include so much of the waters and the bed of said lake as lie within one mile of the shore thereof and east of the present boundaries of the city."

And this defendant avers that the boundaries as thus fixed include, amongst others, all the lands fronting east upon said Lake Michigan, between the Chicago river on the north and extending south to Twenty-second street, in said city, a distance of about two and one-half miles, and into said lake a distance of one mile from the shore thereof, and that, although the limits of said city have been largely extended in several directions since the passage of said act of February 28, 1854, still the eastern boundary thereof, within the north and south lines aforesaid, has never been in any manner changed nor its jurisdiction over the waters and bed of Lake Michigan restricted and modified so as to affect the grants of rights and privileges made by said city to this respondent, as herein-after stated.

And this respondent, further answering, admits and states it to be true that from the first organization of the city of Chicago down to the present time the harbor of the said city has been largely and almost exclusively the Chicago river, the outlet of which has been artificially made somewhat south of the center east and west line of said section ten (10): that said river and its branches and extensions have been improved at large expense by the corporate authorities of said city and the owners of the lots and lands abutting thereon, with special reference to such uses of said river, and docks have been constructed and warehouses built for the accom-

Answer of L.
R. Co., filed
7, 1883.

modation of the shipping and commercial business of said city at great cost, both public and private, in order to meet the increasing demands of the business of said city related to or connected with the navigation of Lake Michigan and its water connections; that the dock frontage of said river, including its enlargements and artificial extensions, is many miles in extent and furnishes large facilities for the accommodation of the vessels engaged in the carrying trade of the great lakes; and this defendant expressly charges it to be true that but very little of said business is transacted or is likely to be transacted in the city of Chicago excepting upon 19 and along said river and its extensions aforesaid. This respondent, further answering, also admits that the population and business of Chicago have largely increased in the past twenty years, and that recently much has been said upon the subject of an outer harbor, and that several years since the Government of the United States commenced the construction of a breakwater nearly parallel with the shore of Lake Michigan, in front of said city and about one-half mile east thereof, with a view of enclosing the portion of said lake lying between said breakwater and said shore and furnishing a safe and convenient anchorage for vessels, said space so intended to be enclosed extending north to the pier projected into Lake Michigan and forming the south line of the Chicago river and on the south to a breakwater, returned from the breakwater first above described to a point 1,000 or more feet from the shore of said lake at or near Twelfth street, in said city, the said north and south boundaries being about one mile distant from each other; that the work upon said breakwater has been in progress for several years and is yet incomplete, and that no effort has been made in the construction of docks or wharves within said enclosed space or to render the same available for the loading and unloading of vessels, except as such improvements have been made by this respondent as hereinafter stated; nor has the Government of the United States, so far as this respondent is advised, adopted any detailed plan for the improvement of said space, except in relation to the part thereof occupied and improved by this respondent aforesaid; and this respondent, further answering, admits that by an act of Congress approved September 20, 1850, the United States granted to the State of Illinois, for the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with one branch

of I. C. R.
Filed Apr.

of the same to Chicago and Lake Michigan and another branch by way of Galena, in Jo Daviess county, to a point on the Mississippi river opposite the city of Dubuque, in the State of Iowa, the right of way over the public lands and the right to take necessary materials of earth, stone, timber, etc., for the construction of said road, said right of way not to exceed, however, two hundred feet in width, and that in addition to such right of way there was also granted to said State of Illinois for the purpose aforesaid alternate sections of land, designated by even numbers, for the distance of six miles on each side of the said right of way of said road and branches.

This respondent, further answering, also admits that the said State of Illinois afterwards and by an act of the General Assembly of said State, duly approved on the 10th day of February, 1851, incorporated this respondent, The "Illinois Central Railroad Company," and by the same act granted to this respondent all the lands aforesaid granted by the United States to the State of Illinois and the right of way through the public lands in said State, and in addition thereto all such lands, waters, and materials belonging to the State throughout the length of said road as said company might require for the location of depots and stopping stages, for the purpose of constructing bridges and embankments, and for station grounds, engine-houses, shops, and other buildings necessary for the construction, completion, altering, maintaining, preserving, and operating said railroad, with authority to acquire lands for the purposes aforesaid by purchase and the exercise of the right of eminent domain, and it was also provided in said act of incorporation that nothing in said act contained should authorize this respondent to make location of their track within the limits of any incorporated city without the consent of the common council of said city; and this respondent also admits that by an act of the General Assembly of the State of Illinois approved June 22, 1852, this respondent was empowered and authorized to locate, construct, and operate a lateral branch and track from its eastern branch as then located at or near Twelfth street, in said city of Chicago, to the south branch of the Chicago river, on such terms and conditions and in such manner as might be stipulated between the common council of the city of Chicago and said company, all of which said grants and authority from the said State of Illinois to this respondent will more fully appear by reference to the said act of February 10, 1851, and by the said

act of June 22, 1852, both of which are hereby made a part of this answer.

Answer of L. C.
R. Co., filed A
7, 1883.

And this respondent, further answering, also admits that, in pursuance of the acts above referred to and for the purpose of complying with the provisions of the charter of this respondent in respect to the location of its tracks within the corporate limits of the city of Chicago, it procured from the common council of said city leave and permission to locate its tracks within said limits, and the said leave and permission was granted to this respondent by an ordinance of said city passed on the 14th day of June, 1852, which, being accepted by this respondent, was made the basis of a contract between this respondent and the said city, and that the license and permission so granted and conferred by said contract authorized this respondent to lay down, construct, and maintain within the limits of the said city of Chicago and along the margin of the lake adjacent the same a railroad with one or more tracks, and to have the right of way and all powers incident thereto necessary for such purpose, upon the terms and conditions in said ordinance expressed, a copy of which said ordinance is hereto attached and marked "Exhibit A" and made a part of this answer.

And this respondent admits that by said ordinance it was provided, among other things, that the road of this respondent should enter said city at or near the intersection of its southern boundary with Lake Michigan, and, following the shore on or near the margin of said lake northerly to the southern boundary of the open space known as Lake park, in front of fractional section fifteen, should be thence continued northerly across the open space in front of the said fractional section fifteen to such ground as said company might acquire for depot purposes between the northerly line of Randolph street, in said city, and the Chicago river.

And this respondent also admits that by said ordinance the city disclaimed any undertaking to obtain for this respondent any right of way or other right, privilege or easement not in the power of the said city to grant or confer, and also all liability for the acts of this respondent.

And this respondent also admits that in said ordinance the

17 of I. C. R.
2d filed Apr.
1852.

consent of the said city was given to this respondent to enter upon, use and operate for its line of road, and to protect the same from the lake, a width of three hundred feet between the southern boundary of public ground near Twelfth street and the north line of Randolph street, in said city, the west line of said ground not to be less than four hundred feet east of the west line of Michigan avenue and parallel thereto.

And this respondent, in consideration of the license, permission and authority secured by said ordinance, agreed to erect and complete within three years from the acceptance thereof and ever thereafter to maintain a continuous wall or breakwater of regular and slight appearance, not to exceed in height the general level of Michigan avenue, from the northern side of Randolph street to the southern boundary of Lake park aforesaid, at the distance of not more than three hundred feet east from and parallel with the west line of this respondent's right of way, and to continue said wall or breakwater to the southern boundary of the city at such distance outside of the track of this respondent's road as might be convenient, the same to be of sufficient strength and magnitude to protect the ground on the margin of said lake for the entire distance from the north line of said Randolph street to the southern boundary of said city from damage or injury by the action of the waters of Lake Michigan.

And this respondent, further answering, admits that the said ordinance of June 14, 1852, was duly accepted by this respondent, and was embodied in and became a binding contract between the said city of Chicago and this respondent.

And respondent insist and charges it to be true that it has faithfully observed and performed the said contract on its part and is still rightfully entitled to the possession and enjoyment of all the rights and privileges thereby granted.

And this respondent, further answering, also admits that on the 10th day of September, 1855, a further ordinance was passed by the common council of the said city of Chicago by which the consent of the said city was secured to this respondent for the use of a triangular piece of ground lying west of the line of the right of way of this respondent and adjacent thereto and bounded on the north by the north line of Randolph street and on the third side by a line commencing

ing in said north line of said Randolph street three hundred feet east of the west line of Michigan avenue, running thence to a point in the west line of respondent's right of way two hundred feet south from said north line of Randolph street, and that afterwards and on the 15th day of September, 1856, by ordinance of that date, the said city granted to this respondent permission and authority to enter upon and use for

the purpose of its road and other works a space between
22 its breakwater as then constructed and a line drawn from a point on said breakwater seven hundred feet south of the north line of Randolph street extended and running thence on a straight line to the southeast corner of the breakwater, then constructed, east of the depot grounds of this respondent aforesaid, and thence to the Chicago river.

And this respondent, further answering, states the fact to be that immediately after the passage of the said ordinance last mentioned, the provisions of which were accepted by this respondent, it took possession of the said two pieces of land described in said ordinances and improved the same and has ever since been in the possession and occupancy thereof for the purposes of its railroad, and that the said pieces of ground were within the limits of the said city of Chicago as defined by its charter at the time of the passage of the said ordinances respectively, and this respondent claims and insists that it has been and still is in the rightful possession and occupancy thereof; but this defendant has never assumed or pretended to assume that the said ordinances granted to this respondent the title to public lands of the State either within or without the right of way, two hundred feet in width, or that the said city could grant to it title to such public lands; and it admits that the limits of its right of way, specifically as such, are determined by its charter and amendments thereof, which are laws of the State of Illinois.

This respondent, further answering, admits that it constructed the breakwater, a protection against the waters of the lake, mentioned in said ordinance of 1852 in accordance with the terms of the contract entered into between this respondent and said city, from the north line of Randolph street south along the front of said city and two hundred feet east of the line prescribed as the western limit of its right of way and parallel thereto, and that it entered upon the said two hundred feet in width and the triangular strips above de-

Answer of I. C. B.
R. Co., filed Apr
7, 1883.

of I. C. R.
No. filed Apr.

scribed and other portions of ground covered by Lake Michigan east thereof and is now using the same as its own property for the purpose of operating its railroad within the limits of said city, and it claims and insists that the same were and are necessary for the maintenance and complete operation of said railroad and that it has the right so to hold and use the same.

This respondent, further answering, admits that in the year 1852 and at the time of the construction of this respondent's railroad within the limits of said city of Chicago a considerable portion of what is now firm and solid ground between Randolph and Twelfth streets, in said city, and west of this respondent's right of way was covered by water; but this respondent does not know and is not informed whether the solid ground at any time prior thereto extended beyond the west line of its right of way, but it admits that in the year 1852 the waters of the lake were advancing upon the shore and at that time had at some points between Randolph street and Twelfth street aforesaid nearly reached the eastern boundary of Michigan avenue as then and now laid out and in use as a public street; and it also admits that since the
23 year 1852 and mainly in the year 1872, immediately after the great fire in the city of Chicago, the said space between the east line of Michigan avenue and the right of way of this respondent was used as dumping ground for the purpose of depositing the waste and debris of the city, and that by such means and mainly without expense to the said city the ground between Michigan avenue and this respondent's right of way was filled up to or nearly to a level with said Michigan avenue, and since about the year 1872 or 1873 the same has been and is now solid ground, made so in the manner and by the means aforesaid.

This respondent, further answering, admits that in the year 1822 township thirty-nine north, range fourteen east, of the third principal meridian was surveyed under authority of the United States, pursuant to the laws thereof, and at that time and according to such survey the south line of fractional section ten and the north line of fractional section fifteen met the shore of Lake Michigan at the same point, said lines being the same; and it may be, but of that this respondent is not advised, that the said line between the waters of Lake Michigan and the west line of said sections was 1.141

feet in length; and it may also be true, but this respondent is not advised in respect thereto, that the south line of fractional section fifteen was 1,482 feet in length, and that the shore of Lake Michigan between the north and south lines of said fractional section was nearly a straight line.

Answer of I. C.
R. Co., filed A
7, 1883.

This respondent, further answering, says that it is not at present able to state, either upon knowledge, information or belief, whether the map attached to the said information, purporting to show the approximate position of the shore line of said lake as laid down on the survey of 1822 and as it exists at the present time and the changes which have taken place in said shore line, is reasonably or approximately correct in its representations. It admits that the said map pretends to show the conditions existing, in respect to the said shore line, as described in said information; but, not alleging any inaccuracy of said map or admitting its correctness in the particulars shown therein or otherwise, this respondent will, upon the hearing of this cause, furnish, as it may be able, for the use of the court, such maps, tracings and drawings as it may have or can procure touching the matters claimed to be represented by the map attached to said information, if the same shall be deemed necessary.

And this respondent, further answering, admits that in the year 1869 the legislature of the State of Illinois passed an act which became a law on the 16th day of April, 1869, entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," which said act is the same referred to in said information as having taken effect on the said 16th day of April, A. D. 1869, and is in the words and figures following, to wit:

"Section 1. Be it enacted by the people of the State of Illinois represented in the General Assembly, That all right, title and interest of the State of Illinois in and to so much of fractional section fifteen (15) township thirty-nine (39) range fourteen (14) east of the third (3d) principal meridian in the city of Chicago, county of Cook and State of Illinois, as is situated east of Michigan avenue, and north of Park row and south of the south line of Monroe street and west of a line running parallel with and four hundred feet east of the west line of said Michigan avenue—be-

of I. C. R.
filed Apr.
1

ing a strip of land four hundred feet in width, including said avenue, along the "the" shore of Lake Michigan, and partially submerged by the waters of said lake—are hereby granted in fee, to the said city of Chicago, with full power and authority to sell and convey all of said tract east of said avenue, leaving said avenue ninety (90) feet in width, in such manner and upon such terms as the common council of said city may by ordinance provide, provided, that no sale or conveyance of said property or any part thereof shall be valid unless the same be approved by a vote of not less than three-fourths of all the aldermen elect.

"Sec. 2. The proceeds of the sale of any and all of said lands shall be set aside and shall constitute a fund to be designated as the 'park fund' of the said city of Chicago, and said fund shall be equitably distributed by the common council between the south division, the west division and the north division of the said city, upon the basis of the assessed value of the taxable real estate of each of said divisions, and shall be applied to the purchase and improvement in each of said divisions or in the vicinity thereof, of a public park or parks and for no other purpose whatsoever.

"Sec. 3. The right of the Illinois Central Railroad Company, under the grant from the State in its charter which said grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent. of its gross earnings and under and by virtue of its appropriation, occupancy, use and control and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands submerged or otherwise lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue in fractional sections — (10) and fifteen (15) township and range as aforesaid is hereby confirmed and all the right and title of the State of Illinois, in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company, for the distance of one mile and between the south line of the south pier extended eastwardly and a line extended eastward from the south line of lot twenty-one south of and near to the roundhouse and machine shops of said company, in the south division of the said city of Chicago, are hereby granted in fee to the said Illinois Central Railroad Company, its successors

and assigns, provided however that the fee to said lands shall be held by said company in perpetuity and that the said company shall not have the power to grant, sell or convey the fee to the same and that all gross receipts from use, profits, leases or otherwise of said lands or the improvements thereon, or that may hereafter be made thereon, shall form a part of

Answer of I. C. &
R. Co., filed Apr
7, 1883.

the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall forever pay into the State treasury semi-annually the per centum provided for in its charter, in accordance with the requirements of said charter and provided also that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation, nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns from any act of the General Assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor, and provided further, that any of the lands hereby granted to the Illinois Central Railroad Company shall not, during the continuance of such leasehold estate or of such occupancy, be exempt from municipal or other taxation.

"Sec. 4. All the right and title of the State of Illinois in and to the lands submerged or otherwise lying north of the south line of Monroe street, and south of the south line of Randolph street and between the east line of Michigan avenue and the tracks and roadway of the Illinois Central Railroad Company, and constituting parts of fractional sections ten (10) and fifteen (15) in said township thirty-nine (39) as aforesaid, are hereby granted in fee, to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said companies may require, provided that upon all gross receipts of the Illinois Central Railroad Company, from leases of its interest in said grounds, or improvements thereon, or other uses of the same, the per centum provided for in the charter of said company shall forever be paid, in conformity with the requirements of said charter.

"Sec. 5. In consideration of the grant to the said Illinois Central, Chicago, Burlington and Quincy and Michigan Cen-

of I. C. R.
No. filed Apr.

tral Railroad Companies of the lands as aforesaid, said companies are hereby required to pay to said city of Chicago, the sum of \$800,000, to be paid in the following manner, viz: \$200,000, within three months from and after the passage of this act \$200,000, within six months from and after the passage of this act \$200,000, within nine months from and after the passage of this act, which said sums shall be placed in the park fund of the said city of Chicago, and shall be distributed in like manner as is hereinbefore provided for the distribution of the other funds which may be obtained by said city from the sale of the lands conveyed to it by this act.

"Sec. 6. The common council of the said city of Chicago is hereby authorized and empowered to quit claim and release to the said Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company and the Michigan Central Railroad Company, any and all claim and interest in and upon any and all of said land, north of the south line of Monroe street, as aforesaid, which the said city may have by virtue of any expenditures and improvements thereon or otherwise and in case the said common council shall neglect or refuse thus to quitclaim and release to the said companies as aforesaid within four months from and after the passage of this act, then the said companies shall be discharged from all obligation to pay the balance remaining unpaid to said city.

"Sec. 7. The grants to the Illinois Central Railroad Company contained in this act are hereby declared to be upon the express condition that said Illinois Central Railroad Company shall perpetually pay into the treasury of the State of Illinois the per centum on the gross or total proceeds, receipts or income derived from said road and branches stipulated in its charter and also the per centum on the gross receipts of said company reserved in this act."

"This act shall be a public act, and in force from and after its passage."

And this respondent, further answering, expressly denies that no action was had or taken in respect to the grants made by and contained in said act, so far as they related to this respondent. On the contrary thereof, this respondent insists and states the fact to be that within a reasonable time

after the passage of said act, to wit, on the 6th day of July, 1870, this respondent formally accepted the same and all the provisions thereof relating to this respondent and caused due and proper notice of such acceptance to be filed and made a matter of record in the office of the secretary of state for the State of Illinois, where, as this respondent is informed and believes, the said notice of acceptance now remains; and this respondent has ever since acted upon and considered and treated the terms and provisions of said act, so far — they related to this respondent and in all other respects, as binding and effectual for the accomplishment of the purposes therein expressed and according to the literal meaning, form and effect of the language of said act; that, relying upon the provisions of said act, this respondent had, from time to time after the passage thereof and before the attempted repeal of the said act, as hereinafter set forth, and before the filing of said information, entered upon and formally taken possession of, reclaimed and reduced to profitable use considerable portions of the submerged lands referred to and described in said act, which are the same mentioned in said information, and in so doing had expended a large sum of money, to wit, about the sum of five hundred thousand dollars; and the lands so reclaimed have been also otherwise improved at great expense and are now in use by this respondent for the purposes of its business and are necessary for such purposes.

Answer of I. C.
R. Co., filed Aug
7, 1883.

This respondent, further answering, insists that by the passage of this act the State of Illinois granted to this respondent the absolute title to the said submerged lands lying east of its right of way aforesaid and constituting a part of the bed of Lake Michigan to the full extent therein described; that the said grant was a grant in presenti and took effect immediately upon the passage of said act to the fullest extent and according to the terms of said act; that said act vested in this respondent the real and actual title to the said "said" submerged lands therein described, and that the said act and the acceptance of its provisions by this respondent as aforesaid constituted a valid and binding contract between the State of Illinois and the people thereof, on the one part, and this respondent, on the other part, which could not be revoked, modified or impaired without the consent of both parties thereto.

or of I. C. R.
Co. Filed Apr.

This respondent, further answering, insists that said act was and still remains valid and binding upon the State of Illinois and the people of the said State; that the said State acted by and through its General Assembly, had full power and authority to make the said grants in said act contained, so far as the same related to this respondent, and that this respondent was and still is under its charter and the provisions of said act fully competent to take said grants and enjoy the benefit and advantages thereof in the manner and upon the terms in said act specified.

This respondent, further answering, expressly denies that said act was inoperative as to this respondent by reason of any peculiarity of the terms in which the grants thereof were expressed.

It admits, however, that whilst the said act granted absolutely to this respondent the fee-simple title to the submerged lands, which this respondent insists was properly and effectually granted by said act, a proviso was subjoined to said grant, attempting to withhold from this respondent the power and right to alienate or convey the same; that this respondent had at all times assumed that the provisions of said act, including said proviso and all other provisos appended to said grant, were valid, and so treated the same, but this respondent is now advised by counsel, and upon such advice alleges and insists, that if the said proviso is inconsistent with the grant preceding the same and the limitation attempted thereby upon the right and authority of this respondent to alienate and convey the said lands is repugnant to or at variance with the terms of said grant, as alleged in the said information, such proviso and attempted limitation would be and are inoperative and of no avail, and cannot be enforced as against the absolute title in fee granted to this respondent.

This respondent also denies that said proviso and the limitation thereby attempted to be placed upon the absolute title in fee granted to this respondent was or can be construed to be a reservation of authority to the State of Illinois to revoke the grant made to this respondent, or that the title granted by said act to this respondent was, by reason of said proviso and attempted limitation or for any other cause, subject to be resumed by the said State without the consent of this respondent.

ent, or that the same ever has been or can be resumed by said state without such consent.

Answer of I. C. R.
R. Co., filed Apr.
7, 1883.

This respondent also denies that there was no consideration for said grant, and insists that by its express acceptance of the said act it became bound to the said State to perform the duties and obligations therein imposed upon it, and that the said duties and obligations are a good, valid, and sufficient consideration for all the rights and privileges granted to this respondent.

And this respondent, further answering, admits that in the year 1873 the General Assembly of the State of Illinois passed an act entitled "An act to repeal an act entitled 'An act in
28 relation to a portion of the submerged lands and Lake Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' in force April 16th, 1869," which said act was in the words and figures following—that is to say:

"Sec. 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, that the act entitled 'An act in relation to a portion of the submerged lands and Lake Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' in force April 16th, 1869, be and the same is hereby repealed." Which said last-mentioned act was approved by the governor of the said State of Illinois on the 15th day of April, 1873, and, if valid, took effect as a law on the 1st day of July, in said year.

And this respondent, further answering, says that the passage of said act of the 15th day of April, A. D. 1873, and the provisions thereof have never been assented to, ratified, or acquiesced in by this respondent, and it expressly denies the authority of the General Assembly of the State of Illinois alone to annul the grants made by the said act of April 16, 1869; that said act of April 15, 1873, was an attempt on the part of the General Assembly of said State to impair and annul the contract between the said state and this respondent, resulting from the said act of April 16, 1869, and the acceptance thereof by this respondent, and was therefore in violation of the first clause of section 10 of article 1 of the Consti-

of I. C. R.
filed Apr.

tution of the United States, which prohibits the State from passing any law impairing the obligation of contracts.

This respondent, further answering, says that the said act of April 15, 1873, was and is an attempt on the part of the said State, represented by its General Assembly, to deprive this respondent of property and vested rights and interests without due process of law, and is therefore in violation of the provisions of the first section of the XIV. amendment to the Constitution of the United States, which provides, in substance and effect, that no State shall deprive any person of life, liberty, or property without due process of law, or deny to any person within its jurisdiction the equal protection of the laws; for which reasons and because of the repugnancy of said act of April 15, 1873, to the provisions of the Constitution of the United States aforesaid, this respondent insists that the said act was and is wholly inoperative and void.

And this respondent further says that the said act of the General Assembly of the State of Illinois of the 15th of April, 1873, is inoperative and void and should be so adjudged, for the additional reason, amongst others, that said act and the provisions thereof are repugnant to and in violation of that clause of the constitution of the State of Illinois, in force at the time of the passage of said act, which provides that "no contract, obligation, or liability of the Illinois Central Railroad Company" (this respondent) "to pay any money into the State treasury, nor any lien of the State upon or right to tax
29 property of said company, in accordance with the provisions of the charter of said company, approved February 10th, in the year of our Lord 1851, I shall ever be released, suspended, modified, altered, or in any manner diminished or impaired by legislative or other authority."

This respondent, further answering, denies that it has ever encroached systematically or otherwise upon the domain of the State by procuring ordinances from the city of Chicago or in any other manner, or that it has ever pretended to have or assume under the ordinances of said city any other or greater rights or privileges than were thereby conferred upon it. It admits, however, that, having become the owner of all the land fronting on Lake Michigan between the north line of Randolph street and the Chicago river, being a part of fractional section ten (10) hereinbefore referred to, it has from

time to time, for the purposes of its business, filled up a portion of the bed of Lake Michigan directly east of and adjoining said land, and has occupied and still is occupying the same for the purposes of its business, and claims and insists that it had and has the right to do so.

Answer of I. C.
R. Co., filed
7, 1883.

But this respondent expressly states that all the improvements so made as last aforesaid have not in any manner interfered with or obstructed the navigation of the waters of Lake Michigan, and that the same are additions for business purposes made to the land owned by it upon the margin of said lake.

Respondent admits that the improvements in contemplation by it between the north line of Randolph street and the Chicago river were, on or about the year 1870, suspended in consequence of an information filed in the circuit court of the United States for the northern district of Illinois on behalf of the United States for an injunction against the prosecution of said improvements, on the ground that they would interfere with the general plan adopted or which might be adopted by the United States for the construction of an outer harbor; that in consequence of the filing of said information as aforesaid a conference was had between the officers of this respondent and the proper officers of the War Department of the United States Government, the result of which was that the plan of said proposed improvements was agreed upon and the same were thereafter proceeded with and completed in pursuance of said agreement; but this respondent expressly denies that it has entered upon and taken possession of any portion of the bed of Lake Michigan in front of its breakwater and commenced to fill the same with earth, under any claim that any ordinance or ordinances of the city of Chicago aforesaid conferred upon it the title of and right to use land three hundred feet in width, or that it has ever been prevented by the request of the officers of the United States or otherwise from entering upon and taking possession of the submerged lands east of the breakwater constructed by it in front of fractional section 15 aforesaid, for any other cause or reason than that such possession and the improvements in contemplation by this respondent might interfere with plans of the United States Government for the construction of an outer harbor.

of I. C. R.
t, filed Apr.
1

This respondent, further answering, admits that it has begun and is now prosecuting the work of filling with earth and other materials a portion of what was, at the date of the passage of said act of 1869, the bed of Lake Michigan, north of the south line of lot 21, near its round-house, mentioned in said act; but this defendant alleges it to be true that it is the owner in fee of all the ground bordering upon said lake at the points and places where said improvements are in progress; that the said improvements do not extend and are not intended to extend into said lake, to the detriment of the navigation thereof, and will not, when completed, in any manner interfere with the uses of the waters of said lake for purposes of commerce and navigation, and that it holds and claims to hold the title to the submerged lands thus being redeemed from the waters of said lake under and by virtue of the said grant of the State of Illinois contained in the act of the General Assembly of said State herein referred to as the act of 1869, and also by virtue of its rights as the riparian owner; that the enlargement of grounds thus in contemplation is desirable and necessary for the business uses and purposes of this respondent and in order to enable it to give effect to business arrangements entered into by it with other railroad companies having the terminus of their lines of road in said city of Chicago, which arrangements are important and valuable to this respondent, as well as to the city of Chicago and the people of the State of Illinois.

This respondent, further answering, denies that it claims or ever has claimed the right to fill up the bed of Lake Michigan to an indefinite or to any extent detrimental to the interest of the commerce of said lake, as the same might be adjudged by the proper authorities of the United States; but it admits that it has claimed and does now claim the right to improve the shore of Lake Michigan for the purposes and in the interest of its business and for the promotion of commerce and navigation on said lake within the limits of its riparian ownership, and also as prescribed by the said act of the General Assembly of the State of Illinois of 1869.

This respondent, further answering, admits that in taking possession of, improving, and making available for business purposes the shallow waters of said lake adjacent to the eastern limits of said city of Chicago, it has been and will be sub-

ject to all the conditions, requirements, and obligations imposed upon it by and under the said act of 1869, and that by said act and the acceptance thereof by this respondent the State of Illinois is and should be adjudged to be estopped from claiming or asserting as against this respondent any right, title, or interest in respect to the matter alleged and set forth in the said information.

And, having fully answered the said information, this respondent prays to be hence dismissed with its reasonable costs and charges about its suit in this behalf most wrongfully sustained, and this respondent will ever pray, etc.

[Corporation Seal.]

ILLINOIS CENTRAL RAILROAD CO.,

By W. K. ACKERMAN, President.

Attest: WM. J. MAURIAE, Ass't Secretary.

JOHN N. JEWETT, Solicitor for the I. C. R. R. Co.

JOHN N. JEWETT,

LYMAN TRUMBULL, and

B. F. AYER, of Counsel.

EXHIBIT "A."

An ordinance concerning the Illinois Central railroad.

Section 1. That permission is hereby granted to the Illinois Central Railroad Company to lay down, construct and maintain within the limits of the city of Chicago, and along the margin of the lake within and adjacent to the same a railroad with one or more tracks and to operate the same with locomotive engines and cars, under such rules and regulations with reference to speed of trains, the receipt, safe keeping and delivery of freight, and arrangements for the accommodation and conveyance of passengers, not inconsistent with the public safety, as said company may, from time to time establish and to have the right of way and all powers incident to and necessary therefor, in the manner and upon the terms and conditions following to wit: The said road shall enter said city at or near the intersection of its south boundary with Lake Michigan, and following the shore on or near the margin of said lake northerly to the southern bounds of the open space known as Lake park, in front of canal section 15 and continue northerly across the open space in front of said section 15 to such grounds as the said company may acquire be-

Exhibit A. Ordinance concerning I. C. R. R.

Ordin-
ance concern-
ing R. R.

tween the north line of Randolph street and the Chicago river, in the Fort Dearborn addition to said city, upon which said grounds shall be located the depot of said railroad within the city and such other buildings, slips or apparatus as may be necessary and convenient for the business of said company but it is expressly understood that the city of Chicago, does not undertake to obtain for said company any right of way, or other right, privilege or easement not now in the power of said city to grant or confer, or to assume any liability or responsibility for the acts of said company.

Sec. 2. The said company may enter upon and use in perpetuity for its said line road, and other works necessary to protect the same from the lake, a width of 300 feet from the southern boundary of said public ground near Twelfth street, to the northern line of Randolph street, the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue and parallel thereto.

Sec. 3. The said company may extend their works and fill out into the lake to a point in the southern pier not less than 400 feet west, from the present east end of the same, thence parallel with Michigan avenue to the north line of Randolph street extended, but it is expressly understood that the common council does not grant any right or privilege beyond the limits above specified, nor beyond the line, that may be actually occupied by the works of said company.

It is further expressly understood that, should any damage or obstruction occur to the harbor of Chicago, clearly traceable to the construction of said works contemplated by sections 2 and 3 hereof, then the said company shall be held responsible for the same.

Sec. 4. Permission and right of way are hereby given to the said company to construct and to maintain a side track from its main track, beginning at or south of Twelfth street, proceeding through said street or such line as may be prescribed by the common council, westerly to the south branch of the Chicago river, thence crossing the said south branch by a bridge, or other mode to be approved by the common council, which shall not obstruct navigation, thence proceeding northerly to Kinzie street, following, as far as practicable,

the streets, nearest to said branch on such sides of the center of streets as the common council may prescribe, said tract not to be laid west of the west line of Canal street, and also a track leading from the last-mentioned track at or near its intersection with the eastern line of said south branch of the Chicago river along the line of said south branch into Market street, following as far as possible, the street nearest the river, and on such sides of such streets as the common council may direct, thence along the west line of Market street, northerly to Lake street.

Exhibit A. Ordinance concerning I. C. R. R.

And they may also extend the track of said road from their track or grounds south of the south pier, across the Chicago river to North Water street by means of a draw bridge, or other mode which shall not obstruct navigation and which may be approved by the common council.

Sec. 5 And the said track shall be so constructed, furnished and operated as to meet the demands of business upon the streets and lines through and along which they shall run. The said side tracks, the stations, depots, turnouts, switches, turn-tables, buildings and bridges along said lines as well as the motive power to be used and the rate of speed thereon, to be subject to such regulations as the common council may from time to time prescribe for the government of side tracks of railroads within the inhabited portions of the city. Said side tracks shall be open to the use of other railroad companies and railroads connecting therewith, upon just and equitable terms, to be agreed upon by the parties interested, and, in case of disagreement by arbitration.

Sec. 6. The said company shall erect and maintain, on the western or inner line of the ground, pointed out for its main track on the lake shore, as the same is hereinbefore defined, such suitable walls, fences or other sufficient work, as will prevent animals from straying upon or obstructing its tracks and secure persons and property from danger. Said structure to be of suitable materials and sightly appearance, and of such height as the common council may direct, and no change shall be made therein, except by mutual consent, provided, however, that the company shall construct such suitable gates at proper places at the ends of the streets which are now or may hereafter be laid out, as may be required by the common council

Ord. A. Ordina-
tions concern-
I. C. R. R.

to afford safe access to the lake, and, provided also, that, in case of the construction of an outside harbor streets may be laid out to approach the same in manner provided by law in which case the common council may regulate the speed of locomotives and trains across them.

Sec. 7. The said company shall erect and complete within three years after they shall have accepted this ordinance and shall forever thereafter maintain a continuous wall or structure of stone masonry, pier work or other sufficient material, of regular and sightly appearance and not to exceed in height the general level of Michigan avenue opposite thereto, from the north side of Randolph street to the southern bound of Lake park before mentioned at a distance of not more than three hundred feet east from and parallel with the western or inner line pointed out for said company, as "specified in section 2 hereof and shall continue said works to the southern boundary of the city at such distance outside of the track of said road, as may be expedient which structure and works shall be of sufficient strength and magnitude to protect the entire front of said city between the north line of Randolph street and its southern boundary, from further damage or injury from the actions of the waters of Lake Michigan and that part of the structure south of Lake park shall be commenced and prosecuted with all reasonable dispatch after the acceptance of this ordinance.

"Sec. 8. The said company shall not in any manner, nor for any purpose whatever, occupy, use or intrude upon the open ground known as Lake park belonging to the city of Chicago, lying between Michigan avenue and the western or inner line before mentioned, except, as far as the common council may consent for the convenience of said company, while constructing or repairing their works in front of said ground.

"Sec. 9. The said company shall erect no buildings between the north line of Randolph street and the south line of said Lake park, nor occupy nor use the works proposed to be constructed between these points, except for the passage of, or for making up or distributing their trains nor place upon any part of their works between said points, any obstruction to the view of the lake from the shore, nor suffer their locomotives cars or other articles to remain upon their tracks,

but only erect such other works as are proper for the construction of their necessary tracks and the protection of the same.

Exhibit A.
Finance com
ing I. C. R.

"Sec. 10. The said company, in constructing the said line of works in front of Lake park and the public grounds shall make and keep open through the same such culverts or ways, as the common council shall prescribe, from the open
34 lake to the space inside of the western line before mentioned, as will afford room for the uninterrupted flow of water through the same.

"Sec. 11. The said company shall lay down, construct, operate and maintain a track with suitable turnouts, switches and turn-tables, through Twelfth street, or through such other street north of North street as the common council may designate, from their main track, on the lake shore, to connect with the said tracks to be constructed by the Chicago and Rock Island Railroad Company, or procure the same to be done as provided by an ordinance of the city of Chicago passed April 2, 1852, so soon as the said track on the east side of the south branch of the river shall be completed: Provided, that the city of Chicago shall furnish the right of way to the said company free of cost, before requiring said track to be constructed.

"Sec. 12. Upon the acceptance of this ordinance by the said company (which shall be within ninety days of the passing of the same,) a contract or agreement, embodying the provisions herein contained and stipulating that the permission, rights and privileges hereby conferred upon said company shall depend upon the performance on their part of the requirements made upon them by this ordinance, shall be executed, sealed and delivered on the part of the city of Chicago, by the mayor thereof, and on the part of the Illinois Central Railroad Company, by the president thereof, both in usual legal form.

Filed this 7th day of April, A. D. 1883.

JACOB GROSS, Clerk.

for re-
to U. S.
Court,
April 10,

And thereupon, on the 10th day of April, A. D. 1883, the said defendant, The Illinois Central Railroad Company, filed in said cause its certain petition and bond for the removal of said suit into the United States circuit court for the northern district of Illinois; which said petition and bond are in the words and figures following, to wit:

State of Illinois, County of Cook:

In the Circuit Court of said County, March Term, A. D.
1883.

The People of the State of Illinois ex Rel.
James McCartney, Attorney General,

vs.

The Illinois Central Railroad Company,
The City of Chicago, and the United
States of America.

In Chancery.

To the Hon. Thomas A. Moran, one of the judges of the circuit court of said county of Cook:

Your petitioner, The Illinois Central Railroad Company, defendant in the above-entitled suit, respectfully shows to this honorable court that the matter in dispute in said suit is the legal title and ownership of certain parcels of land
35 described in the plaintiff's information and exceeds in value the sum of five hundred dollars, exclusive of costs, and that the suit really and substantially involves a controversy between the people of the State of Illinois and your petitioner arising under the Constitution of the United States.

That your petitioner claims title to the premises in controversy through an act of the General Assembly of the State of Illinois passed April 10, 1869, entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan on the eastern frontage of the city of Chicago," which said act is set forth at length in your petitioner's answer to the said information now on file in this cause.

That your petitioner formally accepted the said act and all the provisions thereof relating to your petitioner and caused

due and proper notice of such acceptance to be filed and made a matter of record in the office of the secretary of state of the State of Illinois; and your petitioner, relying upon the provisions of said act after the passage thereof, entered upon and formally took possession of considerable portions of the lands described and referred to in said act, which are the same mentioned in said information, and has since expended upon the said lands a large sum of money, to wit, about the sum of five hundred thousand dollars.

Petition for
removal to U
Circuit Co
filed April
1883.

That after the acceptance of said act by your petitioner and after your petitioner had entered upon and formally taken possession of the said lands as above stated an act was passed by the General Assembly of the State of Illinois, approved April 15, 1873, in terms providing that the above-mentioned act of April 16, 1869, "be, and the same is hereby, repealed;" and it is claimed in the said information "that the repeal of said act had the effect to withdraw and take from said Illinois Central Railroad Company and revert in the State of Illinois all title which passed from said State to said railroad company" by the act of 1869 above referred to.

And your petitioner alleges in its answer to said declaration and will insist at the hearing of said cause that the said act of April 15, 1873, was an attempt on the part of the General Assembly of the said State to impair and annul the contract between the said state and your petitioner resulting from the said act of April 16, 1869, and the acceptance thereof by your petitioner, and is, therefore, repugnant to the first clause of section ten of article one of the Constitution of the United States, which provides that no State shall pass any law impairing the obligation of contracts.

Your petitioner also alleges in its said answer and will insist at the hearing of said cause that the said act of April 15, 1873, was and is an attempt on the part of the General Assembly of said State to deprive this respondent of property and vested rights and interests without due process of law, and is, therefore, in violation of the first section of the fourteenth amendment of the Constitution of the United States, which provides, in substance and effect, that no State shall deprive any person of life, liberty, or property without due process of law nor deny to any person within its jurisdiction the equal protection of the laws; for which reason and be-

is for re-
 d to U. S.
 it Court,
 April 10,

36 cause of the repugnancy of said act of April 15, 1873, to the provisions of the Constitution of the United States aforesaid your petitioner does and will insist that the said act was and is wholly inoperative and void.

Your petitioner further states that the questions above suggested will be material questions to be passed upon and determined at the trial of this suit, and that said suit is, as your petitioner is advised by counsel, one arising under the Constitution of the United States within the meaning of those words as used in the second section of the act of Congress approved March 3, 1875, entitled "An act to determine the jurisdiction of circuit courts of the United States and to regulate the removal of causes from the State courts, and for other purposes." Your petitioner further states that, although The United States of America and The City of Chicago are named with your petitioner as codefendants in the said information, said codefendants are merely nominal parties, neither of them having any interest in the matters in controversy in said suit between the State of Illinois and your petitioner and neither of them is a necessary or proper party to the determination of such controversy, nor is any relief prayed against either of said codefendants in respect of any of the matters in controversy in said suit.

Your petitioner therefore respectfully prays that this suit may be removed into the circuit court of the United States in and for the northern district of Illinois, and it offers and files herewith a bond, with good and sufficient surety, for its entering in the said circuit court of the United States on the first day of its next session a copy of the record in this suit and for paying all costs that may be awarded by the said circuit court if said court shall hold that this suit was wrongfully or improperly removed thereto; and it prays this honorable court to proceed no further herein except to accept the said surety and bond and to make the order of removal required by law.

THE ILLINOIS CENTRAL RAILROAD
 COMPANY,

By W. K. ACKERMAN, Its President.

State of Illinois, County of Cook, ss:

William K. Ackerman, being duly sworn, saith that he is the president of the Illinois Central Railroad Company and is duly authorized to sign the foregoing petition in its behalf; that he has heard the said petition read and knows the contents thereof, and that the statements and averments therein contained are true, as he verily believes.

Petition for
removal to U.
Circuit Court
filed April
1883.

W. K. ACKERMAN.

Subscribed by the said William K. Ackerman in my presence and by him sworn to before me this 9th day of April, A. D. 1883.

[Notarial Seal.]

JOHN DUNN,
Notary Public.

B. F. AYER,
Of Counsel for the Petitioner.

37 Filed April 10th, 1883.

JACOB GROSS, Clerk.

BOND.

Know all men by these presents that the Illinois Central Railroad Company, as principal, and William K. Ackerman and Benjamin F. Ayer, as sureties, are held and firmly bound unto the people of the State of Illinois in the penal sum of one thousand dollars, lawful money of the United States; for the payment of which, well and truly to be made, we bind ourselves, jointly and severally, firmly by these presents.

Bond on removal,
filed April 10,
1883.

Yet upon these conditions: The said Illinois Central Railroad Company having petitioned the circuit court of Cook county, state of Illinois, for the removal of a certain suit therein pending, wherein the said People of the State of Illinois at the relation of James McCartney, attorney general, is complainant and the said Illinois Central Railroad Company, The City of Chicago, and The United States of America are defendants, to the circuit court of the United States in and for the northern district of Illinois:

Now, if the said Illinois Central Railroad Company shall enter in the said circuit court of the United States on the first day of its next session a copy of the record in said suit and

removal,
April 10,

shall well and truly pay all costs that may be awarded by said circuit court of the United States if said court shall hold that said suit was wrongfully or improperly removed thereto, then this obligation to be void; otherwise in full force and virtue.

In witness whereof the Illinois Central Railroad Company has caused these presents to be signed by its president and its corporate seal to be hereto affixed and the said William K. Ackerman and Benjamin F. Ayer have hereunto set their hands and seals this ninth day of April, A. D. 1882.

[Corporate Seal.]

ILLINOIS CENTRAL RAILROAD
COMPANY,

By W. K. ACKERMAN, Its President.

W. K. ACKERMAN. [Seal.]

B. F. AYER. [Seal.]

Attest: WM. J. MAURIAE, Ass't Sec'y.

State of Illinois, County of Cook, ss:

William K. Ackerman and Benjamin F. Ayer, the sureties named in the foregoing bond, being duly sworn, do depose and say that they are severally residents of the county of Cook and State of Illinois and property-holders therein; that they are severally worth the sum of one thousand dollars over and above all their debts and liabilities and exclusive of property by law exempt from execution, and that they severally have property in said county of Cook liable to execution of the value of more than one thousand dollars.

W. K. ACKERMAN.

B. F. AYER.

38. Subscribed in my presence by the above-named William K. Ackerman and Benjamin F. Ayer and by them severally sworn to before me this ninth day of April, A. D. 1883.

JOHN DUNN,

[Seal.]

Notary Public in and for the said
County of Cook and State of Illinois.

And thereupon, on the 12th day of April, 1883, at the March term of said court, there was filed in said cause a certain notice, and a certain order was made and entered of record; which said notice and order are in the words and figures following, to wit:

Notice of application for removal, April 12 1883.

State of Illinois, County of Cook, ss:

In the Circuit Court of Cook County, March Term, A. D. 1883.

People of the State of Illinois ex Rel.
James McCartney
vs.

Illinois Central Railroad Company et al.

To Messrs. Williams and Thompson, counsel for complainant:

You will please take notice that I shall make an application to the Hon. Thomas A. Moran, one of the judges of the circuit court of Cook county, at his court-room, on Thursday morning, the 12th instant, at ten o'clock in the forenoon, or as soon thereafter as counsel can be heard, for the removal of the above cause to the circuit court of the United States. A copy of the petition is furnished you herewith.

Very respectfully yours,
B. F. AYER,
General Solicitor of Ill. Cent. R. R. Co.

Chicago, April 9th, 1883.

Service of the foregoing notice is hereby accepted this 11th day of April, A. D. 1883.

WILLIAMS and THOMPSON.

continuing
tion for
real.

The People of the State of Illinois ex Rel.
James McCartney, Attorney General of
the State of Illinois,
vs.

The Illinois Central Railroad Company
and The City of Chicago.

44074 - 1824.
Information.

This day came the said defendant, The Illinois Central Railroad Company, by its solicitor, and filed herein its petition and bond for the removal of this cause into the United States circuit court for the northern district of Illinois.

And, on motion of solicitors for the complainant, it is ordered that the hearing of said petition for removal be, and it hereby is, continued to the thirtieth instant.

State of
Cook Co.
rt.

39 United States of America, State of Illinois, Cook County, ss:

I, Jacob Gross, clerk of the circuit court of Cook county, in the State aforesaid, do hereby certify the above and foregoing to be a true, perfect, and complete transcript of the record in a certain cause pending in said court, on the chancery side thereof, between People ex rel., &c., James McCartney, attorney general of the State of Illinois, complainant, and The Illinois Central Railroad Company et al., defendants.

In witness whereof I have hereunto set my hand and affixed the seal of said court, at Chicago, in said county, this 17th day of April, A. D. 1883.

[Seal.]

JACOB GROSS, Clerk.

State of Illinois, County of Cook, ss:

State of
Cook Co.
rt.

I, John G. Rogers, presiding judge of the circuit court of Cook county, in the State of Illinois, hereby certify that Jacob Gross, who signed the above certificate, was at the time of signing the same and is now clerk of the said circuit court of Cook county, duly commissioned and qualified; that said court is a court of record, having a clerk and seal; that said attestation is in due form and by the proper officer, ac-

Answer of City of Chicago.

53

ording to the laws of the State of Illinois, and that the above signature of said clerk is genuine.

Certificate of
Judge Cook Co.
Court.

Witness my hand and seal, at Chicago, in said county of Cook, this 17th day of April, A. D. 1883.

JOHN G. ROGERS, [Seal.]
Judge of the Circuit Court of Cook County.

(Endorsed:) Filed May 7, 1883. Wm. H. Bradley, Clerk.

Afterward, to wit, on the twenty-second day of May, 1883, came The City of Chicago, by its solicitor, and filed in said clerk's office its answer to the bill in said entitled cause; which said answer is in the words and figures following, to wit:

ANSWER.

The answer of The City of Chicago, one of the defendants, to the bill of complaint of The People of the State of Illinois, complainant, upon the relation of the Honorable James M. McCartney, the attorney general of said State.

Answer of City of
Chicago, filed
May 22, 1883.

This defendant, The City of Chicago, for answer to the said bill of complaint, says that it admits all and singular the allegations of fact in said bill of complaint contained; and defendant avers that section- 4 and 5 of said act of the General Assembly of the State of Illinois, passed, to wit, April 16, 1869, entitled "An act in regard to a portion of the submerged lands and Lake park grounds lying in and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," mentioned in said bill of complaint and
40 set forth at large in the answer of the Illinois Central Railroad Company to said bill of complaint, were and are as follows, to wit:

"Section 4. All the right and title of the State of Illinois in and to the lands, submerged or otherwise, lying north of the south line of Monroe street, and south of the south line of Randolph street, and between the east line of Michigan avenue and the track and roadway of the Illinois Central Railroad Company, and constituting parts of fractional sections ten (10) and fifteen (15), in said township thirty-nine (39), as

ver of City of
Chicago, filed
J 22, 1883.

aforesaid, are hereby granted, in fee, to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said companies may require: Provided, that upon all gross receipts of the Illinois Central Railroad Company, from leases of its interest in said grounds or improvements thereon, or other uses of the same, the per centum provided for in the charter of said company shall forever be paid, in conformity with the requirements of said charter.

Sec. 5. In consideration of the grant to the said Illinois Central, Chicago, Burlington and Quincy, and Michigan Central Railroad Companies of the land as aforesaid, said companies are hereby required to pay to said city of Chicago, the sum of eight hundred thousand dollars, to be paid in the following manner, viz: Two hundred thousand dollars within three months from and after the passage of this act, two hundred thousand dollars within six months from and after the passage of this act, two hundred thousand dollars within nine months from and after the passage of this act, two hundred thousand dollars within twelve months from and after the passage of this act; which said sums shall be placed in the park fund of the said city of Chicago, and shall be distributed in like manner as in hereinbefore provided for the distribution of the other funds which may be obtained by said city from the sale of the lands conveyed to it by this act."

And the defendant avers that the said railroad companies have not nor has either of them ever paid or caused to be paid to the defendant, The City of Chicago, the said sums of money mentioned in said section 5 of said act of April 16, 1869, or any or either of them or any part thereof, but the same remain wholly unpaid.

And the said defendant, while insisting that the said act of 1869 was repealed, as averred in said bill of complaint, by an act of the General Assembly of the State of Illinois, passed, to wit, April 15, 1873, also insists and submits to this honorable court that if the court shall be of opinion that the said grant to the Illinois Central Railroad Company and the said other railroad companies was accepted by said companies, and that such grant and the acceptance thereof became and

Motion to Remand.

55

was a binding contract between the State of Illinois and the people thereof, on the one part, and the said railroad companies, on the other part, then the city of Chicago will be entitled to have and receive from the said railroad companies or some of them the said several sums of money mentioned in said section 5, with interest thereon from the dates when the same became due and payable, as provided by said section.

Answer of City of
Chicago, file
May 22, 1883.

All of which matters and things this defendant is ready and willing to aver, maintain and prove as this honorable court shall direct, and pray to be hence dismissed, &c.

[Seal.]

CARTER H. HARRISON,
Mayor of the City of Chicago.

Attest: JOHN G. NEUMEISTER, City Clerk.

FRANCIS ADAMS,

Sol'r. for Defendant.

(Endorsed:) Filed May 22, 1883. W. H. Bradley, Clerk.

Afterward, to wit, on the sixth day of June, in the adjourned May term of said court, 1883, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court of the United States, is the following entry, to wit:

Motion to re-
mand, June 6,
1883.

ORDER.

The People of the State of Illinois ex Rel.
James McCartney, Attorney General,
vs.

Illinois Central Railroad Company et al.

In Chancery.

Now come the parties, by their attorneys, and the motion of complainant's solicitor to remand this cause to the circuit court of Cook county, Illinois, now comes on to be heard, and, after hearing the arguments of counsel thereon, the court, not being sufficiently advised in the premises, takes time to consider.

June 14,

Afterward, to wit, on the fourteenth day of June, in the adjourned May term of said court, 1883, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court of the United States, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel.	}	In Chancery.
James McCartney, Attorney General,		
vs.		
Illinois Central Railroad Company et al.		

The court, having considered and being now fully advised upon the motion to remand this cause, overrules the same.

Afterward, to wit, on the seventeenth day of January, 1884, came the complainant, by its solicitors, and filed in said clerk's office its replication to the answer of the Illinois Central Railroad Company in said entitled cause; which said replication is in the words and figures following, to wit:

42

REPLICATION.

ention, filed
11, 1884.

United States of America, Northern District of Illinois:
In the Circuit Court Thereof.

The People of the State of Illinois at the	}	In Chancery.
Relation of James McCartney, Attorney General.		
vs.		
The Illinois Central Railroad et al.		

The replication of the people of the State of Illinois at the relation of James McCartney, attorney general, complainants and informants, to the answer of the Illinois Central Railroad Company.

These repliants, saving and reserving to themselves now and at all times hereafter all and all manner of benefit and

Replication.—Order.

57

advantage of exception which may be had or taken to the manifold insufficiencies of the said answer of the said defendant, for replication thereunto say that they will aver, maintain and prove their bill of complaint and information to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by these repliants; without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true.

Replication, filed
Jan. 17, 1884.

All which matters and things these repliants are ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said bill and information they have already prayed.

WILLIAMS & THOMPSON,
Solicitors for Complainants and Informants.

(Endorsed:) Filed Jan'y 17, 1884. W. H. Bradley, Clerk.

Afterward, to wit, on the twenty-fourth day of June, in the adjourned May term of said court, 1884, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

The People of the State of Illinois	}	In Chancery.
vs.		
The Illinois Central Railroad Company		
et al.		

Order of reference to Master.

Now come the parties, by their solicitors, and, on motion of the complainant, John L. Thompson, it is ordered that this cause be referred to E. B. Sherman, a master in chancery of this court, to take testimony and report the same to the court.

June 8. Afterward, to wit, on the eighth day of June, in the adjourned May term of said court, 1885, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel. James McCartney, Attorney General, vs. Illinois Central Railroad Company.	}	In Chancery.
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Now comes said James McCartney, attorney general, on behalf of said complainant, and moves the court for leave to file an amended information making additional parties herein; and, after hearing arguments in support of such motion, the court overrules the same, to which said complainant excepts; but the complainant, if it so desires, may amend its information as indicated in the paragraphs of the said amended information in brackets commencing on page four and ending on page six and the paragraphs of same in brackets commencing on page seven and ending on page fourteen; and said complainant may, if it so elects, make the canal commissioners co-complainants and so amend said information as to assert any right or interest claimed by such commissioners for the Illinois and Michigan canal in the bed of the lake outside of the two-hundred-feet right of way held by the Illinois Central Railroad Company and described in the original information herein.

Afterward, to wit, on the sixth day of March, in the adjourned March term of said court, 1886, in the record of the proceedings thereof in said entitled cause, before Hon. Walter Q. Gresham, circuit judge, is the following entry, to wit:

Order, March
1886.

46

ORDER.

People of the State of Illinois ex Rel.
James McCartney, Attorney General,
&c.

vs.

Illinois Central Railroad Company.

In Chancery.

On motion of the attorney general of the State of Illinois, leave is given the complainant to file an amended information herein; and thereupon said complainant, by said attorney general, moves the court for leave to further amend the same.

On the same day, to wit, on the sixth day of March, 1886, came the complainant, by its solicitors, and filed in said clerk's office its amended information in said entitled cause; which said amended information is in the words and figures following, to wit:

AMENDED INFORMATION.

Amended information, filed
March 6, 1886.

State of Illinois, Northern District of Illinois, ss:

In the Circuit Court of the United States in and for the
Northern District of Illinois.

To the honorable the judges of said court:

George Hunt, the attorney general of the State of Illinois, who brings suit for and in the name and by the authority of the people of the State of Illinois, comes now here and in behalf of the people of said State gives this honorable court to understand and be informed that the United States of America, having acquired the tract of country or territory northwest of the Ohio river by cession from the State of Virginia, on condition, however, that there should be formed out of said territory not less than three nor more than five States, and that as soon as any of such States should have sixty-five thousand (65,000) free inhabitants therein they should be admitted into the Union of States on an equal footing with the original States in all respects whatever, did, in the year 1818,

Amended Information,
filed
Sept. 6, 1880.

carve out of said territory and admit into the Union the State of Illinois, the boundaries whereof were defined by Congress and accepted and ratified by said State in its original constitution, as follows:

Beginning at the mouth of the Wabash river, thence up the same and with the line of Indiana to the northwest corner of said State, thence east with the line of the same State to the middle of Lake Michigan, thence north along the middle of said lake to the north latitude forty-two degrees and thirty minutes, thence west to the middle of the Mississippi river, and thence down along the middle of that river to its confluence with the Ohio river, thence up the latter river along its northwestern shore to the beginning; and that by virtue of said act of cession, the conditions thereof, and the performance of those conditions as above recited, the State

of Illinois acquired as well the jurisdiction over as the
47 soil of the bed of Lake Michigan within the boundaries of the State, and the right, title, power, and authority in, to, and over the same absolutely and completely, subject only to the right of the United States to supervision over the navigable waters of said lake so far as may be necessary in exercising its right to regulate commerce with foreign nations and among the several States; that, thus possessing the sovereign power over and proprietorship of the above-described portion of Lake Michigan and the bed thereof, the State of Illinois has the right to protect and defend the same from encroachment, and to sue for relief in respect of any encroachment or infringement of its sovereign or proprietary rights therein.

And this honorable court is further informed that the city of Chicago is situated upon the southwestern shore of Lake Michigan within the boundaries above set forth, and now includes within its limits, with other territory, fractional sections three, ten, fifteen, twenty-two, twenty-seven, and thirty-four, in township thirty-nine north, range fourteen east, of the third principal meridian, said fractional sections bordering upon the lake, which forms the eastern boundary of said sections of said city; that for a considerable time after the organization of the city the harbor was considered to be and was the Chicago river, a small, narrow stream opening into Lake Michigan near the center, east, and west line of said section ten, and such stream and the branches thereof

Amended information, filed
March 6, 1886.

did for a long time form the only harbor of the city, upon which all the shipping arriving from other parts of Lake Michigan and other navigable waters of the United States were moored or anchored and along the shores of which were all the docks and wharves of the city; but in more recent years the growth of the city in population, business, and commerce has required a larger and more convenient harbor, and the United States, in view of such expansion and growth and the probable continuance and increase thereof, has commenced the construction of a system of breakwaters and other harbor protections in the waters of the lake outside the limits of the city and in front of the fractional sections above enumerated. In the prosecution of this work by the United States there has been constructed a line of breakwaters or cribs of wood and stone from the point where the south shore of the Chicago river meets the shore of the lake, thence running several thousand feet east and directly into the lake, thence turning such line due south and extending the same about one mile, and thence turning southwesterly and approaching the shore near the south line of said fractional section fifteen, with openings in said piers or lines of cribs for the entrance and departure of vessels, thus enclosing a large tract of the lake for the uses of shipping and commerce, to be used and known as the harbor of Chicago; that such outer harbor so enclosed comprises a space about one mile and one-half in length from north to south and of a width from east to west varying from one thousand to four thousand feet; that as the commerce and shipping making use of the harbor of Chicago still further expands and increases in the future such harbor will be still further extended toward the south, and it is believed and expected that 48 the necessities of commerce will soon require a large part of the entire lake front of the city — of the Chicago river, and in the near future the portion of the lake in front of fractional section twenty-two and for a convenient and reasonable distance from the shore will be in demand for such purposes, as the front of fractional sections ten and fifteen are now occupied and used therefor.

And this honorable court is further informed that the proper authorities of the United States have in a general way indicated a plan for the improvement and use of that portion of the harbor of Chicago, which has been enclosed as aforesaid, by which a considerable portion of the en-

Amended information, filed
March 6, 1886.

closure is devoted to a harbor of refuge, so called, or outer harbor, where ships may ride at anchor in security and within the protecting walls, and a considerable other portion of such enclosure nearer the shore of the lake is by such plan proposed to be devoted to wharfs and piers alongside of which ships may load and unload and upon which warehouses may be constructed and other structures erected for the convenience of the operations of lake commerce; that the works already constructed and in contemplation by the United States have in view simply the necessary structures and appliances for the protection of shipping by the erection of outer walls or piers of stone or wood, leaving the further development and improvement of the harbor to be carried on in accordance with the general designs furnished by the officers of the United States, but by the proprietors of the soil of the harbor and those having the right to enter upon the harbor for the purpose of making such erections and improvements, the intention of the United States being to confine its operations to the protection and fostering of commerce and navigation in the discharge of its duty of regulating, leaving, as it bound to do, the furnishing of harbor facilities to those having the right and power to provide them; and your informant believes, and therefore states, that by the joint efforts and labors of the United States and the owners, above outlined, there is to be provided in the lake in front of the city an artificial harbor, of a size and capacity sufficient to accommodate the lake commerce of the largest city upon the lakes and the largest in the number of ships entering and departing, as well as in the tonnage thereof, in the United States.

And this honorable court is further informed that by an act of the legislature of the State of Illinois, approved on the fourteenth day of February, A. D. 1823, entitled "An act to provide for the improvement of the internal navigation of this State," certain commissioners therein named were appointed a board of commissioners to consider, devise, and adopt such measures as should or might be requisite to effect the communication by canal and locks between the navigable waters of the Illinois river and Lake Michigan, with directions in said act to cause all necessary surveys and levels to be taken, and to recommend plans for the construction and formation of the canal, and to calculate and estimate the sums of money which might or would be necessary for com-

49 completing the said canal, according to the plans adopted or recommended by them, and to make a plain report of their proceedings under said act to the General Assembly of this State, at the commencement of an extra session of the said General Assembly, should the governor convene the same; all of which, with other things pertaining thereto, will more fully appear by said act, which, with all other acts of the legislature of this State which they shall have to refer to, your informant asks may be, so far as the same shall become important, a part of this information.

Amended information, filed
March 6, 1886.

And that the Congress of the United States, by an act approved March 2, 1827, entitled "An act to grant a quantity of land to the State of Illinois for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan," granted to the State of Illinois, for the purpose of aiding the State in opening a canal to unite the waters of the Illinois with those of Lake Michigan, a quantity of land equal to one-half of five sections in width on each side of said canal (reserving each alternate section to the United States), to be selected by the Commissioner of the Land Office, under the direction of the President of the United States, from one end of the said canal to another, which said act provides, among other things, that the said lands be subject to the disposal of the legislature of the said State for the purpose aforesaid and no other—i. e., for the purpose of aiding the said State in opening a canal to unite the waters of the Illinois river with those of Lake Michigan.

And that so soon as the route of said canal should be located and agreed on by said State it should be the duty of the governor thereof or such other person or persons as might have been or should be thereafter authorized to superintend the construction of said canal to examine and ascertain the particular sections to which the said State would be entitled under the provisions of said act and report the same to the Secretary of the Treasury of the United States, and that the State, under the authority of the legislature thereof, after the selection should have been so made, should have power to sell and convey the whole or part of said land and to give a title in fee simple therefor to whomsoever should purchase the whole or any part thereof.

needed information, filed
March 6, 1886.

And this honorable court is further informed that all the right, power and authority of the State of Illinois over, about, and respecting the lands selected, as hereinafter stated, under and in pursuance of said act is contained in it, and that it has always held title to said land subject to said trust, as the defendants and each of them hereafter named have at all times well known.

And that after the passage of said act of Congress the legislature of the State of Illinois, by an act entitled "An act to provide for constructing the Illinois and Michigan canal" (approved January 22, 1829), did enact and provide that the governor should biennially nominate and, by and with the consent of the senate, appoint three commissioners, whose duty it should be to select or cause to be selected as soon as practicable, in conjunction with such commissioner as should be appointed by the Commissioner of the General Land Of-

50 fice, under the direction of the President of the United States, the alternate sections of land granted to the

State by the provisions of the act of Congress hereinabove referred to, and as soon as the same should have been selected and a duplicate list of the numbers of each section by them selected forwarded to the governor the said commissioners should, as and in the manner provided in and by said act, proceed to sell the said land.

And that said act further provided that said commissioners should have power to lay off such portions of said lands as they might think proper into town lots and to sell the same.

And that by the same act said commissioners were made a body corporate and authorized to sue and be sued and defend in the name of "the board of commissioners of the Illinois and Michigan canal."

And this honorable court is further informed that by an act of the legislature of the said State approved February 15, 1831, entitled "An act to amend an act to provide for the construction of the Illinois and Michigan canal," it was enacted that the board of commissioners authorized by the act, which the act now in question was an act to amend, should constitute a board, to be known under the style and description of "the board of canal commissioners of the Illinois and Michigan canal," with all the ordinary and usual powers of a corporation and with other defined duties and

powers to be defined in such act, but which this informant does not think it necessary here to detail at length or state, but refers to so far as the same may be necessary.

Amended information, filed
March 6, 1886.

And this honorable court is further informed that pursuant to said "acts" of Congress and of the legislature of the State of Illinois and in conformity therewith (among and with other lands in this proceeding not important to be mentioned or described) fractional section fifteen (15), in township thirty-nine (39) north, of range fourteen (14) east, of the third principal meridian, was selected as one of the tracts to be granted to the State of Illinois for the purposes named in said act of Congress approved March 2, A. D. 1827, and said selection was approved by the then President of the United States in the words following:

"Whereas by the act of Congress approved on the second day of March, one thousand eight hundred and twenty-seven, entitled 'An act to grant a quantity of land to the State of Illinois, for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan,' it is provided that there should be 'granted to the State of Illinois for the purpose of aiding the said State in opening a canal to unite the waters of the Illinois river with those of Lake Michigan, a quantity of land equal to the one-half of five sections in width on each side of said canal, and reserving each alternate section of the United States, to be selected by the Commissioner of the Land Office under the direction of the President of the United States, from one end of the said canal to the other; and the said lands shall be subject to the disposal of the legislature of the said State for the purpose aforesaid, and no other.' Be it known that the following-described tracts or sections of land north of the base line, and east of the third principal meridian line, are hereby
51 designated as being a portion of those tracts intended to be granted by the United States unto the State of Illinois by the said act of Congress, upon the conditions and for the purposes therein mentioned, and no other."

And this honorable court is further informed that there had been very little, if any, change in the shore line of said section fifteen or in the width of the same between the date of said survey and the selection and approval of such selec-

amended information, filed
March 6, 1886.

tion by the then President of the United States (which last was on the twenty-first day of May, A. D. 1830) of the said fractional section fifteen (15) as part of the land granted under the said act of Congress approved March 2d, A. D. 1827.

And this honorable court is further informed that the State of Illinois accepted said grant upon the terms in and by said act of Congress provided and entered upon the construction of said canal, and that from the time of such selection and approval thereof down to the time of filing this amended information said trust has been and now is represented by commissioners or trustees named and appointed for that purpose, who have had the charge, management, and control of said lands and the proceeds of the same and of said canal and all its revenues, property, and effects.

And that by an act of the legislature of the State of Illinois entitled "An act for the construction of the Illinois and Michigan canal," approved January 9, A. D. 1836, the governor of the State was authorized and empowered to negotiate a loan on the credit and faith of the State, as in said act provided, for the purpose of aiding in the construction of the Illinois and Michigan canal, not exceeding five hundred thousand dollars; that in and by the said act a new board was created, styled "the board of commissioners of the Illinois and Michigan canal," which was constituted a body corporate and politic, with full power and authority in their corporate name to contract and be contracted with, sue and be sued, defend and be defended, plead and be impleaded in all matters and things relating to them as canal commissioners, and to have and use a common seal, and to cause the canal lands in or near Chicago suitable therefor to be laid off into town lots and to sell said lots, and that said act contained other and further provisions respecting said canal, to which reference is made without here repeating the same; that under the terms and provisions of said act the then governor of the State of Illinois did negotiate the loan therein provided for, and that on or about the 13th day of June, A. D. 1836, the then commissioners of the said Illinois and Michigan canal, in conformity to the provisions of said act approved January 9, A. D. 1836, and in strict accordance with the trust under which the same was held, caused part of said fractional section fifteen (15) along the west side thereof to be

Amended Information, filed
March 6, 1880.

subdivided into lots and blocks and made and recorded a plat of such subdivision, which is now in the possession of the "canal commissioners" of the State of Illinois, ready to be produced and proved as this court shall direct, and for the same purpose and to the same end thereafter sold the lots in said subdivision, but that said subdivision was confined 52 to the west part of said tract, and did not extend east of Michigan avenue, as the same is now occupied and used, except a narrow strip on the south end thereof, and all of said tract between said Michigan avenue and the waters of the lake, except said narrow strip on the south end thereof known and described on and by said plat as lots 1 to 6, both inclusive, in block twenty-three (23), was neither then nor has the same since been granted, sold, or conveyed by any legal or competent authority so as to free it from said trust, but the same remains and ever since said grant has remained and now is subject to the terms and conditions of said grant to the State of Illinois and the trust thereby created.

And this honorable court is further informed that at the time said survey and plat was made, to wit, on or about the 13th day of June, A. D. 1836, because of certain artificial causes and constructions created and made by parties other than the said State of Illinois or the board of commissioners of said canal and without their consent, some abrasion or washing away of the lake front of said fractional section fifteen had occurred, but they are advised and believe that the east line of said tract was then about 1,200 feet east of its west line, and that there was a tract of land, the property of said State of Illinois, subject to said trust and the terms of said grant, unsubdivided and unsold, extending from Madison street on the north to 12th street on the south (except said lots 1 to 6, both inclusive, in block 23 of said subdivision), over 700 feet in width.

And that by an act of the legislature of the State of Illinois approved March 2, 1837, entitled "An act to amend 'An act for the construction of the Illinois and Michigan canal,'" approved January 9, 1836, it was made the duty of the commissioners of said canal to proceed immediately to the prosecution and final completion of said canal upon the plan theretofore and in the year A. D. 1836 set out by the commissioners, and they were authorized to sell such part of the canal lands

ended Information, filed
March 6, 1886.

in the township in which Chicago is situated, with other property as might be necessary to produce the sum of one million of dollars, and the governor of the State was directed, when he should be advised of its necessity by such canal commissioners, to borrow upon the credit of the State the sum of five hundred thousand dollars, which sum should be expended on the said canal in the year 1838, in addition to the moneys arising from the sale of the canal lands and which might be then in the treasury of said board.

And this honorable court is further informed that the prosecution of the work on said canal was continued as by said act directed and required, and money was borrowed and debts and liabilities were incurred therefor and on that account, and that further and other legislation to the same end was had in the said State of Illinois from time to time, providing for loans to aid in the construction of said canal and the reimbursement of the same and pledging said canal lands as security therefor, intermediate the act last referred to and the one next herein mentioned, which your informant begs
53 leave to refer to as and if it shall become necessary so to do, without setting the same out or further referring thereto, the same being part of the public laws of the said State.

And this honorable court is further informed that afterwards the legislature of the State of Illinois, by an act entitled "An act to provide for the completion of the Illinois and Michigan canal, and for the payment of the canal debt," approved February 21, 1843, enacted and provided, among other things, as follows:

"Whereas it has been represented that certain holders of the bonds of this State are willing to advance the necessary funds for the completion of the Illinois and Michigan canal upon being secured the payment of their said advances and of their said bonds by a vested lien upon the said canal, lands, and revenues; for the purpose, therefore, of accomplishing an object so desirable and beneficial to the said bondholders and the State:

"Sec. I. Be it enacted by the people of the State of Illinois, represented in the General Assembly, that for the purpose of raising a fund for the completion of the Illinois and

Michigan canal, the governor of this State be and hereby is fully authorized and empowered to negotiate a loan solely on the credit and pledge of the said canal, its tolls, revenues and lands, to be granted to trustees, as hereinafter provided, of one million six hundred thousand dollars, for a term not exceeding six years, and at a rate of interest not exceeding six per cent. per annum, payable out of the first moneys to be realized from the said canal, its lands, tolls and revenues, the payment of interest and reimbursement of principal to be at such place, within or without the United States, and payable in such currency as may be agreed on.

Amended information, filed
March 6, 1886.

"Sec. II. The holders of canal bonds and other evidences of indebtedness of this State, issued for the purpose of aiding in the construction of the Illinois and Michigan canal, or hereafter to be issued for work done, percentage, scaleage or damage, shall be first entitled to subscribe, in proportion to the amount of bonds or other indebtedness held by them, and take the whole of the said loan; but if, within a reasonable time, to be determined by the governor, any of the said holders of canal bonds or indebtedness shall neglect or refuse to subscribe as aforesaid, the whole of the said loan may be subscribed for and taken by other holders of canal bonds or indebtedness; but if, within a reasonable time, to be determined by the governor, the holders of the said canal bonds or other evidences of indebtedness aforesaid, shall not subscribe for and take the whole of the said loan, then and in that case, any other person or persons, body politic or corporate, shall be entitled to subscribe for and take so much of the said loan as may remain unsubscribed for by the said holders of bonds or other evidences of debt aforesaid.

"Sec. III. After the said loan shall be subscribed for as aforesaid, there shall be appointed three discreet persons to constitute a board, to be known by the style and description of the 'board of trustees of the Illinois and Michigan canal'; one of the said trustees shall be appointed by the governor of this State, and the other two shall be elected or appointed by the subscribers to the said loan, or the holders of
54 the certificates authorized by this act, in manner and form as hereinafter mentioned. * * *

Amended information, filed
March 6, 1886.

"Sec. V. Subsequent elections shall be held every two years, at such time and place, and under the direction of such persons, as a majority of the trustees, for the time being, shall, by resolution to be entered on their minutes, appoint, and they shall hold their offices for two years, and until others are elected in their stead. * * *

"Sec. X. For the purpose of placing in the hands of trustees full and ample security for the payment of said loan authorized by this act, and the interest thereon, as well as for securing a preference in the payment of such of the canal bonds and other evidences of indebtedness issued by this State for the purpose of aiding in the construction of the Illinois and Michigan canal, as may be owned by the subscribers to the said loan, the State does hereby irrevocably grant to the said board of trustees of the Illinois and Michigan canal, the bed of the said Illinois and Michigan canal and the land over which the same passes, including its banks, margins, tow-paths, feeders, basins, right of way, locks, dams, water power, structures, stone excavated and stone materials quarried, purchased, procured or collected for its construction; and all the property, right, title and interest of the State of, in and to the said canal, with all the heridaments and appurtenances thereunto belonging, or in anywise appertaining; and also all the remaining lands and lots belonging to the said canal fund, or which hereafter may be given, granted or donated by the General Government to the State, to aid in the construction of the said canal, and the buildings and erections belonging to the State thereon situated; the said board of trustees to have, hold, possess and enjoy the same as fully and as absolutely, in all respects, as the State now can or hereafter could do, for the uses, purposes and trusts hereinafter mentioned. * * *

"Sec. XIII. The said board of trustees, when appointed, are hereby authorized to take possession of the said canal, lands, property and assets granted to them by this act, and proceed to complete the same. They are hereby authorized to make such changes and alterations of the original plan of said canal as they may deem advisable, without reducing its present capacity or materially changing its present location, having due regard to economy, permanency of the work, and an adequate supply of waters at all seasons. None of the lots, lands or water powers so granted to the said trustees

Amended information, filed
March 6, 1845.

shall be sold until three months after the completion of said canal; the said lots, lands and water powers shall then be offered for sale by the said trustees at public auction, in lots and legal subdivisions, once or oftener in each year for the four succeeding years; said sales to be made for cash or on credit, in the manner prescribed in the act of the ninth of January, eighteen hundred and thirty-six. The said lands, lots and water power, before they are offered for sale as aforesaid, shall be appraised by three disinterested persons, to be appointed by the judge of the circuit court in which said lands, lots and water power are situated, who shall
55 take an oath faithfully and impartially to discharge the duty of appraisers. Said lands, lots and water power, when so appraised, shall not be sold for less than the appraisement. After the expiration of the four years the said trustees shall expose the residue of said lands which may remain on hand to sale, at such times and in such manner as they may deem proper. The said board of trustees are authorized to convey lands and water powers sold by them as aforesaid, after the purchase-money for the same be fully paid, but not before; and the said lands and lots shall be exempt from taxation of every description by and under the authority of any law of this State, until after the same shall have been sold and conveyed by the said trustees as aforesaid. * * *

"Sec. XVIII. This act shall go into effect, and the said canal property and assets shall vest in the said trustees, as hereinbefore granted, whenever and as soon as the full amount of said loan shall be subscribed for, and the trustees elected as hereinbefore provided; and when this act goes into effect, so much of the acts heretofore passed by the legislature of this State in relation to the Illinois and Michigan canal, and the canal lands and property, as conflicts with the provisions of this act, are hereby repealed."

And this honorable court is further informed that afterward the legislature of the State of Illinois, by an act approved March 1, 1845, entitled "An act supplemental to 'An act to provide for the completion of the Illinois and Michigan canal and for the payment of the canal debt,' " approved February twenty-first, one thousand eight hundred and forty-three, further enacted that after the completion of the contract for the loan of \$1,600,000, as contemplated in said act,

Amended information, filed
March 6, 1886.

approved February 21, 1843, should be duly executed in all respects as provided by the terms of said act, as modified by the provisions of the act now referred to, and the trustees were appointed as contemplated in said act, the governor of the State should execute and deliver, under the seal of the State, a deed of trust to said trustees of all property and effects mentioned in the tenth section of said act, approved February the 21st, which said conveyance should include the lands and lots remaining unsold, donated by the United States to the State of Illinois, to aid in the completion of the said canal, to be held in trust as in the said act stipulated.

And this honorable court is further informed that the loan of one million six hundred thousand dollars provided for in and by said acts was subscribed for in strict pursuance of the provisions thereof, and the subscribers became entitled to the privileges conferred upon them by the same and elected William H. Swift and Jacob Leavitt as trustees of the Illinois and Michigan canal, and Jacob Fry was nominated trustee of said board by the governor of the State; and thereupon the said governor, Thomas Ford, by deed, made, executed, and acknowledged in conformity to existing laws relating thereto, and reciting said acts approved February 21, 1843, and March 1, 1845, granted and conveyed to said trustees all the said canal lands then remaining unsold, and that part of the land so granted and conveyed was that part of said fractional section fifteen which lies east of Michigan avenue, except said lots 1 to 6, both inclusive, in block twenty-three 56 (23), in the subdivision, as hereinbefore stated, made by said commissioners of part of said fractional section, whereby and by means whereof they became seized in fee as trustees of all of the same and entered upon and took possession of the same, and so continued seized and possessed until the nineteenth day of August, A. D. 1871, when they reconveyed the same to the said State of Illinois; that during the intermediate period they proceeded with the construction of said canal and incurred large obligations in such construction, and that said trust was not ended or determined nor the indebtedness of the said canal paid till the time of said reconveyance as aforesaid, from all which it appears that at the time of the passage of the act of the legislature of the State of Illinois granting the charter of the Illinois Central Railroad Company in 1851, and of the pretended passage of

the act of 1869, hereinafter mentioned, the title to said fractional section fifteen was in no part in said State.

Amended information, filed
March 6, 1886.

And it is insisted and claimed that during all said period it was not in the power of the legislature of the State of Illinois to grant said land or any part of the same, whether submerged or not, to any other person or corporation whatever, and that any attempted grant of the same by said State for any purpose whatever outside of the provisions of said trust was without force or legal effect and gave no right or claim whatever to any beneficiary named in any such attempted grant.

And this honorable court is further informed that said canal is now and ever since its completion has been in active and, during the season of navigation, in constant use, needing daily supervision and care and requiring the employment of a large number of subordinates and of large sums of money to keep it in repair; that it is liable at all times to accident and injury so extensive as not only to stop its use for a greater or shorter time, but also requiring large sums to again put it in order.

And this honorable court is further informed that it became necessary for the legislature of the State of Illinois at its session commencing January 8, 1879, because of such danger and liability, and that means might be provided to keep the said canal in navigable condition until after the adjournment of the (then) next General Assembly, to appropriate from the State treasury for the first year the sum of thirty thousand dollars, and for the second year the sum of thirty thousand dollars, for that purpose, as by an act of said legislature entitled "An act making appropriation for the necessary repairs and running expenses of the Illinois and Michigan canal until the expiration of the first fiscal quarter after the adjournment of the next General Assembly," approved May 21, 1879, will more fully and at large appear.

And that for the same reason, to the same end, and for the same purpose as is stated in said act, by an act bearing the same title, approved May 27, 1881, there was appropriated from the State treasury for the first year the further sum of thirty thousand dollars, and for the second year the like sum; and that for the same reason, to the same end, and for the

Amended information, filed
March 6, 1886.

57 same purpose as is stated in said act, by an act bearing the same title and approved June 25, 1883, there was appropriated from the State treasury for the first year the sum of twenty thousand dollars, and for the second year the like sum; and that appropriations will hereafter be necessary at each session of the legislature of the State of Illinois to the end in and by said acts intended, and that the said canal is now in bad condition and needs extensive and costly repairs and the expenditure of a large sum of money to such end.

And that there is great and immediate necessity that the said canal be enlarged and its capacity increased, and that the best interest of the canal and of the people of Illinois would be much and immediately promoted by enlarging the same, and that so apparent and pressing is the necessity therefor that by an enactment entitled "An act ceding the Illinois and Michigan canal to the United States," approved April 28, 1882, the legislature of the State of Illinois offered and tendered to the United States the said canal, its right of way, and all its appurtenances and all right, title, and interest which the State had in any real estate ceded to the State by the United States for canal purposes, if the United States would make and maintain an enlarged waterway and canal from Lake Michigan to the Illinois and Mississippi rivers.

And this honorable court is further informed that the United States, by act of Congress approved September 20, 1850, granted to the State of Illinois, for the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with a branch of the same to Chicago, on Lake Michigan, and another via the town of Galena, in said State, to Dubuque, in the State of Iowa, a right of way through the public lands, with the right to take necessary materials of earth, stones, timbers, etc., for the construction of said road, provided that such right of way should not exceed one hundred feet on each side of the length thereof, and in addition to such right of way there was also in and by the same act granted to the State of Illinois for the purpose aforesaid every alternate section of land, designated by even numbers, for six sections in width on each side of said road and branches, with other conditions, limitations, and provisions as to the construction of the road, as the same are in such act set forth.

Amended Information, filed
March 6, 1886.

That for the purpose of executing the trust confided to the State of Illinois by the act of Congress above mentioned the Illinois Central Railroad Company was incorporated by the legislature of Illinois by an act approved on the 10th day of February, 1851, and the right of way, together with the land granted as aforesaid by the United States to the State of Illinois, was conferred upon the Illinois Central Railroad Company for the purpose of constructing a railroad on the routes above expressed; that in addition to the right of way and the lands received from the United States the State of Illinois also granted to said railroad company, for the purpose of constructing bridges, embankments, station grounds, engine-houses, shops, and other buildings necessary for
58 the construction, completing, altering, maintaining, preserving, and complete operation of such road, all such lands, waters, materials, and privileges belonging to the State throughout the length of said road, with authority to acquire lands for the purposes aforesaid by the exercise of the right of eminent domain, such grant of lands and of such right of way 200 feet in width being ceded and granted to said corporation for the only & sole purpose of surveying and constructing, completing, and altering and maintaining and operating said road and branches, as in said act provided, with the provision that nothing in said act contained should authorize said company to make a location of their track within any city without the consent of the common council of said city.

And this honorable court is further informed that by an act of the legislature of the State of Illinois, approved June 22, 1852, said Illinois Central Railroad Company was empowered and authorized to locate, construct, and operate a lateral branch and track from its eastern branch as then located at or near 12th street, in the city of Chicago, to the south branch of the Chicago river, on such terms and conditions and in such manner as might be stipulated between the common council of the city of Chicago and said company; that in pursuance of the powers and privileges granted said corporation in the acts above referred to and for the purpose of complying with the limitations expressed in the charter of said company and locating the track of said road within the corporate limits of the city of Chicago, said company pro-

Amended information, filed
Feb 6, 1886.

cured from the common council of the city of Chicago an ordinance, which was passed on the 14th day of June, 1852, providing that permission should be granted to said railroad company to lay down, construct, and maintain within the limits of the city of Chicago and along the margin of the lake adjacent to the same a railroad, with one or more tracks, and to have the right of way and all powers incident thereto and necessary therefor, upon certain terms and conditions therein expressed, among which conditions and provisions were the following, to wit: That the said road should enter the city at or near the intersection of its southern boundary with Lake Michigan and following the shore on or near the margin of said lake northerly to the southern boundary of the open space known as Lake park, in front of canal section 15, continue northerly across the open space in front of said section 15 to such grounds as said company might acquire between the northern line of Randolph street and the Chicago river, in Fort Dearborn addition to said city, upon which ground should be located the depot of such railroad company within said city and such other buildings, shops, and other apparatus as might be necessary and convenient for the business of the company, said city, in and by said ordinance, expressly disclaiming any undertaking to obtain for said railroad company any right of way or other right, privilege, or easement not in the power of said city to grant or confer, and disclaiming all liability and responsibility for the acts of said company.

That in and by said ordinance the consent of the city was given to said railroad company to enter and use in perpetuity, for its line of road and other works necessary to protect
59 the same from the lake, a width of 300 feet from the southern boundary of said public ground near 12th street to the northern line of Randolph street, the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue and parallel thereto, the said company agreeing, in consideration of the benefits and advantages secured by said ordinance, to erect and complete, within three years after the acceptance of said ordinance, and to forever maintain a continuous wall or structure of stonemasonry or brick-work or other sufficient material, of regular, slightly appearance, and not to exceed in height the general level of Michigan avenue from the northern side of Randolph street to the southern

point of Lake park, before mentioned, at a distance of not more than three hundred feet east from and parallel with the western or inner line pointed out for said company as specified in section 2 of said ordinance, and shall continue said work to the southern boundary of the city at such distance outside of the track of said road as may be expedient, which structure and works may be of sufficient strength and magnitude to protect the entire front of the city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan.

Amended information, filed
March 6, 1886.

That there were other and further provisions, restrictions, and limitations upon the mode of using the right of way so authorized to be taken by the city as aforesaid, all of which more fully and at large appear by reference to the ordinance or a copy thereof, which is to be produced at the hearing of this cause and which your informant hereby makes a part of this information.

That such ordinance of the city of Chicago of June 14, 1852, was accepted by the said railroad company and a contract in solemn form was executed between the city of Chicago, of the one part, and the Illinois Central Railroad Company, of the other part, by which each bound itself to the other to fulfill the requirements, provisions, conditions, and limitations in said ordinance contained.

That afterwards and on the 10th day of September, 1855, a further ordinance was procured from the city of Chicago, by which the consent of said city was secured to the use by said railroad company of that piece of ground lying west of the line prescribed to said railroad company next to the north line of Randolph street and described as the piece of land between the north line of Randolph street and the west line of the railroad right of way, and a third line extending from a point in the north line of Randolph street 300 feet east of the west line of Michigan avenue; thence by a straight line to a point in the west line of the railroad right of way 200 feet south of the north line of Randolph street; and that afterwards and on the 15th day of September, 1856, the further permission was secured from the city of Chicago, so far as said city had a right to grant the same, to the Illinois Cen-

Amended information, filed
March 6, 1886.

tral Railroad Company entering upon and using for its line of railroad and other works the space between the then line of the breakwater 700 feet south of the north line of Randolph street extended and running thence on a straight line to the southeast corner of its then breakwater and thence to the river, and that while the city of Chicago had no power or authority to cede or grant to said railroad company any right of way over any of the public lands or any portion of the bed of Lake Michigan and having only the power of giving its permission to the entry within the limits of the city of the railroad company with its line of road and works appertaining thereto, nevertheless, said railroad company assuming or pretending to assume that the grant obtained from the city of Chicago conferred on said railroad company the authority to use the public lands belonging to the State and in the bed of Lake Michigan outside and beyond the prescribed right of way of 200 feet in width, it, after the passage of the two ordinances last above mentioned, entered upon and has since used the two triangular pieces of land next to the north line of Randolph street above described and which are outside of and beyond the prescribed 200 feet within which the limits of the right of way are determined by the charter of said railroad company and the law of the State of Illinois.

That the breakwater and the protection from the waters of the lake, mentioned in said ordinance, was constructed by said railroad company, substantially in accordance with the terms of the contract entered into with the railroad company and the city, from the north line of Randolph street south along the front of said city 200 feet east of the line prescribed as the west limit of said right of way and parallel thereto; which said tract of ground 200 feet wide and the triangular strip above described, together with other portions of the body of the lake as will be hereafter mentioned, said railroad company has entered upon and is now using as its own property for the purpose of operating its said railroad within the limits of said city.

And this honorable court is further informed that in the year 1852, the date of the ordinance of the city of Chicago above referred to and the date of the entry of the said Illinois Central Railroad Company within the limits of the city of Chicago and of the extension of said road to the Chicago

river, the so-called open ground between Randolph street and 12th street was to a considerable extent under the waters of the lake; that Lake park, so called, had extended from Randolph street to Park row, near 12th street, and from Michigan avenue east to a line beyond the west line of the railroad right of way, but in the year 1852 the waters of the lake had advanced upon the shore until by the process of abrasion the water reached nearly to Michigan avenue; but since the year 1852 the city of Chicago has caused Lake park to be restored by filling in until now Lake park is a solid body of land extending from Michigan avenue to the railroad tracks and from Randolph street to Park row.

Amended information, file
March 6, 1888

That in the year 1822 said township 39 north, range 14 east, of the third principal meridian was surveyed and marked out under the authority of the United States, pursuant to the laws thereof, and at the time, according to such survey, the south line of fractional section 10 met the shore of Lake

Michigan 1,141 feet from the west line of said section; 61 that fractional section 15 adjoining section 10 on the south was, according to the same survey, 1,141 feet wide on its northern line and 1,482 feet wide on its southern line, the shore of the lake making nearly a straight line between the north and south lines of said section.

That a map or sketch of the shore of Lake Michigan between the river and 22d street is hereto attached, which shows with approximate accuracy as it was marked down in the survey of 1822 and as it exists at the present time, and also various changes which have taken place in the shore line between those dates. Upon this map the line of the survey of 1822 is marked in blue. A sand bar, marked in red, extended at that time and up to 1836 from the river to a point several hundred feet south of the south line of section 10, which sand bar was not surveyed in 1822. The old channel of the river, which at that time turned south at the northern limit of the sand bar and opened into the lake at the southern limit thereof, marked the eastern limit of the survey of 1822. The yellow line of said map in front of section 15 shows the shore line as marked down on the plat of the subdivision of that section by the canal commissioners in 1836, and such yellow line is properly the eastern boundary of Lake park, so called. In the year 1852, at the time of the entry of the Illinois Central Railroad into the city, the water had encroached upon the land

Amended information, filed
March 6, 1886.

so that in front of section 15 the shore line was at the red line on said map, and in front of section 10 the shore line in 1832 was not far from Michigan avenue, as shown on the plat of 1839 and represented on this map by the black line, and from these two last-mentioned lines to the outside breakwater shown on the map the water has been filled with earth and other materials and solid ground made, all of which has been done and all of such ground occupied by the Illinois Central Railroad Company, excepting Lake park between Michigan avenue and the said right of way, which was filled by and is now in the possession of the city of Chicago.

And this honorable court is further informed that in the year 1869 the Illinois Central Railroad Company procured to be passed by the legislature of the State of Illinois an act which took effect by the passage thereof over the veto of the governor of the State on the 16th day of April, 1869. In and by said act all the right, title, and interest of the State of Illinois in and to so much of fractional section 15, township 39 north, range 14 east, of the third principal meridian, in said city of Chicago, as was situated east of Michigan avenue and north of Park row and south of the south line of Monroe street and west of a line running parallel with and 400 feet east of the west line of Michigan avenue was granted to the city of Chicago, with power to sell the same and to use the proceeds of such sale as a park fund, to be distributed by the common council and devoted to park purposes in the city of Chicago.

And it was further provided in said act that the right of the Illinois Central Railroad Company under the grant from the State in its charter and under and by virtue of the appropriation, occupancy, use, and control and the riparian ownership incident to such grant, appropriation, occupancy, use, and control in and to the lands, submerged or otherwise, lying east of the line running parallel with and 400 feet east of the west line of Michigan avenue in said fractional sections 10 and 15 should be confirmed, and that in and by said act all the right and title in the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile and between the south line of the south pier extended easterly and in a line extended eastward from the south line of lot 21 and south of

and near the round-house and machine shops of said company should be granted in fee to the said Illinois Central Railroad Company, its successors and assigns: Provided, however, that the fee to said land should be held by said company in perpetuity, and that said company should not have the power to grant, sell, or convey the fee in the same, and provided also that nothing contained in said act should authorize obstructions to the Chicago harbor or impair the public right of navigation.

Amended information, filed
March 6, 1886.

The said act further provided that the right and title of the State of Illinois in and to the lands, submerged or otherwise, lying north of the south line of Monroe street and south of the south line of Randolph street and between the east line of Michigan avenue and the track and the roadway of the Illinois Central Railroad Company, being parts of sections 10 and 15, should be granted in fee to the Illinois Central Railroad Company, The Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot and for such other purposes as the business of said companies might require. In consideration of said grant of the three blocks of land last mentioned to said three railroad companies the said companies were to pay to the city of Chicago the sum of \$800,000, all of which will more fully and at large appear by reference to the said act of 1869.

And this honorable court is further informed that the allegations and claims thus made by said company are severally and each of them without foundation in fact, and that no such law was ever passed by the legislature of the State of Illinois and no such act ever became the law of said State.

And this honorable court is further informed that if any such law or any law with the title and embodying the terms, provisions, conditions, and restrictions claimed as herein stated by the said company was ever passed by the legislature of this State it was inoperative, invalid, and void for the purposes and to the ends claimed as herein stated by said company, both because the said company could not accept, take, or hold the grants or any of them in said alleged act specified and therein and thereby attempted to be made, and particularly could not take or hold the said submerged land constituting the bed of Lake Michigan claimed by said company.

Amended information, filed
March 6, 1886.

And because the said legislature had no power to and could not grant the same or make the grants or any of them as claimed by said company to be made in and by said pretended act, and because the said alleged act, if it should be otherwise held to be good and valid and within the power of the legislature to pass, was invalid and void for many reasons, and especially in this: that it was a private and local law and embraced more than one subject and embraced several subjects not expressed in the title.

And this honorable court is further informed that the said Illinois Central Railroad Company at the time, to wit, on the 16th day of April, 1869, had no riparian rights whatever to the land submerged or otherwise lying east of a line running parallel with and four hundred feet east of the west line of Michigan avenue in said fractional sections ten and fifteen.

And this honorable court is further informed that appurtenant to and belonging to said section ten (10) and said section fifteen (15) and said section twenty-two (22) and to the ownership thereof along the lake shore in contact with the water were and are and at all times have been certain rights and privileges and modes of enjoyment wholly distinct from the public right of navigation which were and are and always have been property rights and property.

That the said pretended act of April 16, 1869, if the same was otherwise legal and effective, would take away from and deprive the owners of land along the lake shore in said sections, and, among others, the said trustees of the Illinois and Michigan canal on that day, and would take away and deprive the canal property of such property rights without compensation and without a day in court, and for such reason would be unconstitutional and void under the constitution of the State of Illinois.

Your informant charges that no action was had or taken upon said grant, and that said act was on the 15th day of April, 1873, repealed by an act of the legislature of said State of Illinois, which said act was on the date last aforesaid approved by the governor: that said repeal was effected before possession had been taken of the land so purported to be granted as aforesaid, and before any act had been done upon said land by virtue or in pursuance of the power and authority

given to said railroad companies by said act had the effect to withdraw and take from said Illinois Central Railroad Company and revest in the State of Illinois all title which passed from said State to said railroad company by the act of 1869, above recited; that said act of 1869, while purporting to grant a considerable portion of the body of Lake Michigan to the Illinois Central Railroad Company, was inoperative and ineffectual for that purpose for want of capacity in said railroad company to accept and receive the same, as by reference to its charter, passed in 1851, as above recited, will fully appear; and said act was also inoperative by reason of the peculiarity in the terms of the grant, the legislature by said act purporting to grant the fee to said railroad company and by the same act expressly withholding from said railroad company the power to grant, sell, or convey the same, or if said act is construed so as to pass the title to said submerged land it was a title subject to be resumed by the State which gave

it, and there was no consideration for said grant; and
64 your informant insists that the same was withdrawn and revested in the State of Illinois by the repeal of the act of 1873; that the said act of 1869 contained little, if anything, of legislation except the grants above recited; that the object and intention of the legislature in passing said act of repeal was to undo what had been done by the act of 1869, to withdraw what had been given by that act, and to revest in the State whatever title had been divested thereby.

And this honorable court is further informed that the said railroad company after its entrance into the city began a system of encroachment upon the domain of the State, the first indication of which was the procuring the passage of the ordinances purporting to grant in perpetuity the two triangular strips of ground near Randolph street, and which it immediately entered upon, pretending to assume the right of the city to grant the same, and is now using the same under the same pretense; that it soon after began filling with earth that portion of the bed of the lake in front of fractional section ten north of Randolph street under the claim that, having acquired the land on the shore of the lake, the so-called riparian rights enabled it to advance the shore and its own land into the lake at its pleasure or upon some other unfounded assertion of right, but that this encroachment upon the property belonging to the State was, after it had proceeded to a considerable extent, arrested by the action of the United States

*Amended information, file
March 6, 1886.*

Amended information, filed
March 6, 1886.

in suing out of the circuit court of the United States for the northern district of Illinois an injunction prohibiting the continuance of the encroachments upon the waters of the lake, which injunction remained in force until dissolved by the said railroad company entering into a stipulation having the substantial effect of the injunction; that the said railroad company not long ago entered upon the bed of the lake in front of its breakwater and commenced to fill the same with earth, with the view of using the same for railroad purposes, and this was done under the claim that the ordinance of the city above mentioned conferred upon it the right to use land three hundred feet in width, and that it was now only occupying two hundred feet in width, but this encroachment was also prevented by the action of the officers of the United States, whose request to the railroad company to desist was sufficient without the necessity of suing out an injunction; that the said railroad company has begun and is now prosecuting the work of filling with earth and other materials that portion of the bed of Lake Michigan in front of fractional section 15, both north of and south of lot 21, near its round-house, mentioned in said act of the legislature of Illinois passed in 1869; that it is proceeding to sink lines of cribs of earth and stone in the lake in front of said section 15 and enclosing within such lines large areas of the lake, which it then fills in with earth and other materials in order to appropriate the ground so made and to use the same for railroad and other purposes; that your informant is informed that it justifies or pretends to justify such proceedings under the act of 1869, so far as they are carried on north of its round-house; that it also asserts that by its charter of 1851 it was empowered to use all the land and domain which it might ever after need and desire
65 for railroad purposes, while the truth and fact is that and it has long ago made the location of its road and, as your informant believes, has caused the same to be recorded in the proper offices as the law requires, and its power to use the public domain has long been exhausted, and in addition thereto such enlargement and increase of its land and facilities are not required for its own railroad purposes, but that other railroad companies have leased from the Illinois Central the use of its tracks, grounds, and structures, from which a large rental is derived, and without such facilities so used and enjoyed by other railroad companies its occupancy of the public ground could be very much curtailed instead of being enlarged; that the grant contained in its charter, upon which

reliance is placed, was not made to enable it to lease the granted privileges to other railroad companies, but for its only and sole use; that some contract or lease or other arrangement has been made by it with the Michigan Central Railroad Company, the New York, Chicago and St. Louis Railroad Company, the Baltimore and Ohio Railroad Company, the exact terms of which arrangement are unknown to your informant, but they result in the use of track room and other facilities by means of which such roads enter the city of Chicago.

Amended information, filed
March 6, 1886.

And this honorable court is further informed that the said Illinois Central Railroad Company claims that the law of 1866, above referred to, vested in it the absolute title to the submerged land therein mentioned, and that such title and authority has not been divested by the repeal of said act or otherwise.

It further claims that the charter of 1851 granted the use of all the public domain in the State in front of its tracks along the shore of Lake Michigan, in the city of Chicago, so far as the same is needed or desired for railroad purposes, not only for its own use, but also to lease to other railroad companies. It also claims that the grant of the right of way contained in the charter of 1851 and the location thereof by the railroad company operated to convey to the company the fee-simple title to such right of way; and such right of way being upon the shore of the lake in the city of Chicago such ownership carried with it the so-called riparian rights, under which it could fill the lake and extend the shore into the waters thereof to an indefinite extent. It also claims that it has purchased from the private owners certain portions of the shore of the lake, and that the ownership acquired in that way carries with it the so-called riparian right of making available the bed of the lake by filling the same with earth and other materials, thus making solid ground of the bed of a navigable lake of vast extent and appropriating the same under the name of the exercise of riparian rights; that the said railroad company threatens to enforce its said claims by the use and occupation of the bed of the lake in front of said sections ten and fifteen southward from the mouth of the Chicago river and for an indefinite distance into the lake, and in pursuance of such claims and threats and of other claims has entered upon and is occupying the triangular strips near Randolph

Amended information, filed March 6, 1886.

66 street as above set forth; it has entered upon and is occupying a considerable tract of land in front of said section ten, between the Chicago river and Randolph street, east of the land acquired by it for railroad purposes, and that at the time of its entry upon such triangular strips and the domain in front of section ten the same and all of it was covered by the waters of Lake Michigan, and your informant claims that it was and is the property of the State; that in pursuance of its claims and threats above set forth said company has entered upon the bed of the lake south of Randolph street extended east and claims the right—and threatens to exercise it—of using the bed of the lake from Randolph street extended to the south line of said section 15, and is now engaged in filling portions of the lake within the lines last mentioned.

And this honorable court is further informed that notice has been given by your informant, in behalf of the people of the State of Illinois, to the Illinois Central Railroad Company of the rights of the State, and the company has been required by the same authority to desist from the encroachments above set forth, but the notice is disregarded and the title of the State is openly disputed by the company, and the railroad company openly and publicly gives out that it has the right to use the bed of the lake, as it now is beginning to use the same. Your informant states that these claims, pretenses, and public outgivings of the said railroad companies are a great and irreparable injury to the State of Illinois as a proprietor and owner of the bed of the lake, throwing doubts and clouds upon its title thereto and preventing an advantageous sale or other disposition thereof; that the entry upon and the use and occupancy of the public domain as above set forth is a purpresture and a public nuisance and should be enjoined by this honorable court; that the title to this tract of soil is held by the State in trust for the people thereof, and as a trustee it is bound to protect the interests and rights of the beneficiaries, as well the said Illinois Central Railroad Company as all the public of Illinois, and your informant therefore calls upon this court to adjust and determine the title to the portion of the lake in question and to limit and determine the rights therein and thereto of the Illinois Central Railroad Company, if any it has.

Your informant states that the right to and the ownership

of the soil of the harbor of Chicago is of immense and incalculable value; that the ownership — soil thereof and the right to control the same even subject to the right of the United States should not belong to any single individual or association of persons or to any private corporation; the whole public is interested therein, and a private ownership thereof would constitute a very dangerous menace to the commercial interests of the whole body of the people, not only in this State, but throughout the northern portion of the United States.

Amended information, filed
March 6, 1886.

Your informant states that the injury from the actions and doings of the Illinois Central Railroad Company is irremediable at law, and that the State is only relievable in equity, and he makes parties defendant hereto The Illinois Central Railroad Company, The United States of America, and The City of Chicago, both of which have or claim some rights or interests in the subject hereof.

67 To the end, therefore, that the Illinois Central Railroad Company, the United States of America, and the City of Chicago may answer this information, their answer on oath being waived, and that the title of the State of Illinois to the bed of Lake Michigan outside the said 200 feet right of way of the Illinois Central Railroad Company may be established and confirmed; that the claims of the said railroad company thereto under the various grants and ordinances above referred to may be declared to be unfounded and without force, and that the clouds and doubts cast thereby upon the title of the State be removed; that the boundaries between the land of the United States and of the city of Chicago and of the State may be ascertained and the shore line and navigable water determined; that the said Illinois Central Railroad Company may be enjoined and restrained from filling any of the bed of the lake (outside of its right of way), from sinking cribs or constructing piers therein, or in any manner encroaching upon the domain of the State as the same is in this information asserted to exist, and that the rights of said railroad company under the various laws of the State may be ascertained and declared; that the structures and erections, all filling, piling and crib-work, and pier constructions made by the Illinois Central Railroad Company upon or in the said domain of the State (excepting within

Amended information, filed
March 6, 1886.

its said 200 feet right of way) may be directed to be removed and such domain restored to the condition in which it was before such encroachments were made, and that the State of Illinois may be declared to have the sole and exclusive right to develop the harbor of Chicago by the construction of docks, wharfs, etc., and to dispose of such rights at its pleasure for the interests of the public, and that such other and further or different relief may be granted as is agreeable to equity—

May it please the court to grant the writ of summons, directed to the sheriff of Cook county, by which the Illinois Central Railroad Company and the City of Chicago may be directed to appear and answer this information and to abide by the decree herein; and may it please the court to grant the writ of injunction by which said defendant may be enjoined pending the suit as they are above prayed to be forever enjoined; and your informant will ever pray, etc.

GEORGE HUNT,
Attorney General Illinois.

(Endorsed:) Filed March 6, 1886. Wm. H. Bradley, cl'k.

Afterward, to wit, on the twenty-third day of April, 1886, there was filed in said clerk's office a stipulation in said entitled cause; which said stipulation is in the words and figures following, to wit:

68

STIPULATION.

Stipulation, filed
April 23, 1886.

Circuit Court of the United States in and for the
Northern District of Illinois.

The People of the State of Illinois

vs.

Illinois Central Railroad Company et al.

It is hereby stipulated and agreed that the amended information in this case heretofore filed in this court may be further amended as follows:

From the 6th and 7th lines of page 28 strike out the

Stipulation.—Order.

89

words "outside the said 200 feet right of way of the Illinois Central Railroad Company."

Stipulation, filed
April 23, 1886.

From 15th line of same page strike out the words "outside its right of way."

Strike out from line 21 of same page the words "excepting within its said 200 feet right of way."

And by changing the prayer for process to the prayer that this court enter an order requiring the said defendants, The Illinois Central Railroad Company and The City of Chicago, to answer said information as amended within some reasonable time to be fixed by said court.

Chicago, April 21, 1886.

JOHN N. JEWETT,
Sol. for Ill. C. R. R. Co.
F. S. WINSTON,
Sol'r for City of Chicago.

(Endorsed:) Filed April 23rd, 1886. Wm. H. Bradley, clerk.

On the same day, to wit, on the twenty-third day of April, in the adjourned March term of said court, 1886, in the record of the proceedings thereof in said entitled cause, before Hon. Walter Q. Gresham, circuit judge, is the following entry, to wit:

ORDER.

People of the State of Illinois by the Relation of the Attorney General of said State
vs.

Illinois Central Railroad Company et al.

In Chancery.

Order, April 23,
1886.

On motion of the attorney general of the State of Illinois, based upon the stipulation herewith filed consenting thereto, it is ordered that the amended information in this case filed on the sixth day of March last be further amended as follows: That the words "outside the said 200 feet right of way of the Illinois Central Railroad Company," in the sixth and seventh

Order, April 23,
1886.

lines of page 28 of said amended information, be stricken out and held for nought; that the words "outside its right
69 of way," in the 15th line of same page, be stricken out and held for nought; that the words "excepting within its said 200 feet right of way," in the 21st line of the same page, be stricken out and held for nought.

That the paragraph commencing at the bottom of the 28th page as follows, "May it please the court to grant the writ of summons," and ending with "and your informant will ever pray, etc.," be stricken out, and in lieu thereof the following paragraph be inserted:

"May it please the court to enter an order directing the said defendants, The Illinois Central Railroad Company and The City of Chicago, to plead, answer, or demur to said information as amended within some reasonable time to be fixed by this court; and your informant will ever pray, etc."

And on like motion it is ordered that the said defendants, The Illinois Central Railroad Company and The City of Chicago, plead, answer, or demur to the said amended information within twenty days from the entry of this order.

Afterward, to wit, on the third day of May, 1886, came the Illinois Central Railroad Company, by its solicitors, and filed in said clerk's office its answer to the amended information in said entitled cause; which said answer is in the words and figures following, to wit:

United States of America, Northern District of Illinois, ss:

In the Circuit Court of the United States in and for the
Northern District of Illinois.

Answer I. C. R.
Co. to amend
information,
filed May 3, 188

The People of the State of Illinois ex Rel. George Hunt, Attorney General, vs. The Illinois Central Railroad Company et al.	}	Amended Infor- mation.
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The separate answer of The Illinois Central Railroad Com-
pany, one of the defendants, to the amended information
in the above-entitled cause.

This respondent, now and at all times hereafter saving
and reserving any and all rights and advantages of exception
which may be taken to the many errors, uncertainties, and
other imperfections in the said amended information con-
tained, for answer thereto or so much and to such parts
thereof as it is advised it is material and necessary to make
answer unto says that it admits that the State of Illinois is a
part of the territory lying northwest of the Ohio river ac-
quired by the United States of America by cession from the
State of Virginia, and that said State was admitted into the
Union on an equality with the original States in the year
1848, with boundaries fixed and defined substantially as set
forth in said amended information, and that thereupon the
title to the bed of Lake Michigan within the said bound-
aries became vested in the State, with full power of dis-
position and alienation, subject, however, to the rights
and privileges of riparian owners and also to the power to
regulate commerce vested by the Federal Constitution in the
Congress of the United States.

And this respondent, further answering, admits that the
city of Chicago is situated within the boundaries of the State
of Illinois, upon the margin of Lake Michigan, near to its
southwestern extremity, and that it includes within its lim-
its, with other territory, fractional sections three (3), ten
(10), fifteen (15), twenty-two (22), twenty-seven (27), and
thirty-four (34), in township thirty-nine (39) north, range

wer I. C. R. R.
to amended
formation,
ed May 3, 1886,

fourteen (14) east, of the third principal meridian, which fractional sections originally bordered upon said Lake Michigan, as stated in said information; but this respondent insists and states it to be true that the boundaries of the said city of Chicago and the limits of its jurisdiction have not been at all times the same; that the boundaries of the city of Chicago were, by the first section of an act of the legislature of the said State of Illinois entitled "An act to reduce the laws incorporating the city of Chicago and the several acts amendatory thereof into one act and to amend the same," approved and in force February 14, 1851, fixed and determined, which said section of said act is as follows:

"Section 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, That the district of country the county of Cook, and State of Illinois, known and described as follows, to wit: All that part of township thirty-nine, north, range fourteen, east of the third principal meridian, which lies north of the north line of sections twenty-seven, twenty-eight, twenty-nine and thirty of said township, and the east half of section thirty-three and fractional section thirty-four, in township forty, north, range fourteen, east, is hereby erected into a city, by the name of the 'city of Chicago,' and by the second section of said act it was provided, amongst other things, that "the inhabitants of said city should be a corporation by the name of the 'city of Chicago,' and by that name sue and be sued," etc.

This respondent further states that by a subsequent act of the legislature of the State of Illinois, approved and in force on the 28th day of February, A. D. 1854, entitled "An act amendatory of an act entitled 'An act to reduce the law incorporating the city of Chicago and the several acts amendatory thereof into one act and to amend the same,' approved February 14, 1851," it was provided in the first section thereof as follows: "That the corporate limits and jurisdiction of the city of Chicago shall be, and the same are hereby, extended to Lake Michigan, and shall include so much of the waters and bed of said lake as lie within one mile of the shore thereof and east of the present boundaries of the city." And this defendant avers that the boundaries as thus fixed include, amongst others, all the lands fronting east upon said Lake Michigan between the Chicago river on the north and extending south to Twenty-second street, in said city, a dis-

tance of about two and one-half miles and into said lake a distance of one mile from the shore thereof, and that although the limits of said city have
 71 been largely extended in several directions since the passage of said act of February 28, 1854, still the eastern boundary thereof within the north and south lines aforesaid has never been in any manner changed nor its jurisdiction over the waters and bed of Lake Michigan restricted or modified so as to affect the grants of rights and privileges made by said city to this respondent, as hereinafter stated, nor has said city, by virtue of the acts of legislation or otherwise, acquired any property rights or beneficial interest in the waters or bed of Lake Michigan.

Answer I. C. R.
 Co. to amend
 information,
 filed May 3, 18

And this respondent, further answering, admits and states it to be true that from the first organization of the city of Chicago down to the present time the harbor of the said city has been largely the Chicago river, the outlet of which has been artificially made and maintained somewhat south of the center east and west line of said section ten; that said river and its branches and extensions have been improved at the expense of the corporate authorities of said city and the owners of the lots and lands abutting thereon, with special reference to such uses of said river, and docks have been constructed and warehouses built for the accommodation of the shipping and commercial business of said city at great cost, both public and private, in order to meet the increasing demands of the business of said city related to or connected with the navigation of Lake Michigan and its water connections; that the dock frontage of said river, including its enlargements and artificial extensions, is many miles in extent and furnishes large facilities for the accommodation of the vessels engaged in the carrying trade of the Great Lakes; and this defendant expressly charges it to be true that very little of said business is transacted or is likely to be transacted in the city of Chicago excepting upon and along said river and its extensions aforesaid.

This respondent, further answering, also admits that the population and business of Chicago have largely increased in the past twenty years, and that recently much has been said upon the subject of an outer harbor, and that several years since the Government of the United States commenced

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

the construction of a breakwater nearly parallel with the shore of Lake Michigan in front of said city and about one-half mile east thereof with a view of enclosing the portion of said lake lying between said breakwater and said shore and for the purpose of furnishing a safe and convenient anchorage for vessels, said space so intended to be inclosed extending north to the pier projected into Lake Michigan and forming the south line of the Chicago river and on the south to a breakwater, returned from the breakwater first above described to a point 1,000 or more feet from the shore of said lake, at or near 12th street, in said city, the said north and south boundaries being about one mile and a third distant from each other; that the work upon said breakwater has been in progress for several years and is yet incomplete, and that no effort has been made in the construction of docks or wharves within said enclosed space or to render the same available for the loading and unloading of vessels except as such improvements have been made by this respondent, as

hereinafter stated, nor has the Government of the United States, so far as this respondent is advised, adopted any detailed plan for the improvement of said space except in relation to the part thereof occupied and improved by this respondent as aforesaid.

And this respondent, further answering, admits that by an act of the legislature of the State of Illinois approved on or about the 14th day of February, 1823, entitled "An act to provide for the improvement of the internal navigation of the State," certain persons therein named were appointed and constituted a board of commissioners to take into consideration such measures as should be requisite to establish communication by canal and locks between the navigable waters of the Illinois river and Lake Michigan, and in said act said commissioners were directed to cause the necessary surveys and levels to be made and taken and to make report of the plans for the construction of such canal, with estimates of the money which would be necessary for completing the same according to the plans recommended by them, and to make report of their proceedings under said act to the General Assembly of said State or to an extra session of the General Assembly, if such extra session should be had, as by said act, reference being thereunder had, will more fully and at large appear.

This respondent, further answering, also admits that by an act of Congress of the United States approved on or about March 2, 1827, entitled "An act to grant a quantity of land to the State of Illinois for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan," there was granted to the State of Illinois, for the purpose of aiding in opening and constructing a canal to unite the waters of the Illinois river with the waters of Lake Michigan, certain lands equal to one-half of five sections in width on each side of the said canal, to be selected by the Commissioner of the General Land Office of the United States, under the direction of the President, and that said act provided, amongst other things, that the said land should be subject to the disposal of the legislature of the State of Illinois for the purpose of aiding said State in the construction of a canal uniting the waters of the Illinois river with those of Lake Michigan, and also provided that so soon as the route of said canal should be located and agreed upon by said State it should be the duty of the governor thereof or such other person or persons as might have been or might be thereunto authorized to superintend the construction of said canal to examine and ascertain the particular sections to which the said State would be entitled under the provisions of said act and to make report thereof to the Secretary of the Treasury of the United States, and that said State of Illinois, under the authority of the legislature thereof, should, after the selection of said lands had been made, have power to sell and convey the same or any part of said lands and give title thereto in fee simple to the purchasers thereof; and this respondent admits that said act of Congress was the source of the right, power, and authority of the State of Illinois over and in respect to the lands which were selected in pursuance thereof, and that the said State of Illinois took, under the said act of Congress and the deed or deeds subsequently executed therefor, the title to said land, subject to the conditions and provisions in said act contained.

This respondent, further answering, also admits that after the passage of said act of Congress the legislature of the State of Illinois, by an act entitled "An act to provide for constructing the Illinois and Michigan canal," approved January 22, 1829, authorized the government to biennially nom-

Answer I. C. R. B.
Co. to amended
information,
filed May 3, 1880.

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

inate and by and with the consent of the senate to appoint three commissioners, whose duty it should be to select or cause to be selected as soon as practicable, in conjunction with a commissioner to be appointed by the Commissioner of the General Land Office of the United States under the direction of the President, the alternate sections of land granted to the State by the provisions of the act of Congress above referred to, giving authority to the said commissioners after the selection of said lands to make sale thereof in any manner provided in said act. This respondent also admits that said act of the legislature of the State of Illinois gave authority to the said commissioners to subdivide the said lands into town lots and to make sale of the same as such town lots whenever, in their judgment, such subdivision should be proper, and by the said act the said commissioners were made a body corporate, with authority to sue and be sued and defend in the name of "the board of commissioners of the Illinois and Michigan canal."

This respondent, further answering, also admits the passage of an act of the legislature of the State of Illinois, which was approved February 15, 1831, referred to in said amended information, entitled "An act to amend an act to provide for the construction of the Illinois and Michigan canal," by which said last-named act the said commissioners were constituted a board to be known under the style and description of "the board of canal commissioners of the Illinois and Michigan canal," and were invested with the ordinary and usual powers of a corporation particularly defined in said act, to which reference is hereby made for greater certainty.

This respondent, further answering, admits that effect was given to the said several acts of legislation, hereinbefore referred to, as stated and set forth in said amended information, and that, in conformity with the provisions thereof, certain lands were selected by the commissioners appointed for that purpose, as hereinbefore and in said amended information set forth, and that the said selections so made were approved by the President of the United States in proper form, as required by said acts, amongst which said selected lands was fractional section 15, in township 39 north, of range 14 east, of the third principal meridian.

Answer I. C. R. B
Co. to amend
information,
filed May 3, 1887

This defendant, further answering, admits that the State of Illinois accepted the said grant upon the terms provided in the act of Congress hereinbefore referred to, and shortly after the selection of the lands aforesaid and the approval of such selection by the President of the United States, as hereinbefore and in said amended information set forth, the said State of Illinois began the construction of said canal, and that the management, control, and disposition of the said

74 lands so selected were from the time of such selection and the approval thereof vested in certain persons from time to time designated in pursuance of acts of the legislature of the State of Illinois, sometimes called "commissioners" and at other times called "trustees," the said persons so designated, however, having at all times whilst occupying the positions of commissioners or trustees full power and authority to make disposition of the said lands as in their judgment might be proper and best for the interests of the State of Illinois.

This respondent, further answering, admits that by an act of the legislature of the State of Illinois entitled "An act for the construction of the Illinois and Michigan canal," approved January 9, 1836, the governor of said State was authorized and empowered to negotiate a loan on the credit and faith of the State, as in said act provided, for the purpose of aiding in the construction of the Illinois and Michigan canal, not exceeding five hundred thousand dollars, and that in and by said act a new board was created, styled the board of commissioners of the Illinois and Michigan canal, which was constituted a body corporate and politic, with power and authority in their corporate name to contract and be contracted with, sue and be sued, defend and be defended, plead and be impleaded, in all matters and things relating to them as canal commissioners, and to have and use a common seal; and this respondent says that it was by said act made the duty of said commissioners to have general supervision over the construction of said canal, the selection of town sites thereon, and the management of all lands and property set apart the proceeds of which were applicable to the building or maintenance of said canal, and that by the thirty-third section of said act it was provided as follows:

"Sec. 33. And the said board of canal commissioners shall on the 20th day of June next proceed to sell the lands in the

Answer I. C. R. R.
Do. to amended
information,
filed May 3, 1886.

town of Chicago, and such parts of the lands in the town of Ottawa, as also fractional section 15 adjoining the town of Chicago, it being first laid off and subdivided into town lots, streets and alleys, as in their best judgment will promote the interests of the said canal."

And this respondent insists that by said act full power and authority was given to said board of commissioners to subdivide and plat all the land included within said fractional section 15, therein described as adjoining the town of Chicago, and to sell the same, the said fractional section being said fractional section 15, township 39 north, of range 14 east, of the third principal meridian, hereinbefore referred to, and which is especially made the subject of these proceedings.

This respondent, further answering, says that afterwards the legislature of the State of Illinois passed an act, which was approved and in force on the second day of March, A. D. 1837, entitled "An act to amend 'an act for the construction of the Illinois and Michigan Canal,'" approved January 9, 1836, by which said last-mentioned act the power of the said board of canal commissioners to subdivide and plat the lands conveyed to the State in aid of the construction of the said

Illinois and Michigan canal and to sell the same were
75 ratified, confirmed, and enlarged, as by the said act, reference thereunto being had, will more fully and at large appear.

This respondent, further answering, admits it to be true that the State of Illinois, through its governor, negotiated the loan in said act of January 9, 1836, provided for; and this respondent also says that the said board of commissioners of said Illinois and Michigan canal, in conformity with the provisions of said act and in the exercise of the powers conferred upon them thereby, caused the whole of the said fractional section 15, above referred to, to be subdivided into lots, blocks, streets, and alleys, and that a plat of said subdivision was duly made, acknowledged, certified, and recorded in pursuance of the authority granted to the said board of commissioners, hereinbefore recited, and in strict compliance with the laws of the State of Illinois at that time in force respecting such plats; and this respondent expressly denies that said subdivision was confined to the west part of the said fractional section lying west of Michigan avenue, and insists and

states the fact to be that said subdivision and the plat representing the same included the whole of said fractional section 15, from the western boundary thereof to the shore of Lake Michigan, the portion thereof lying east of the west line of said Michigan avenue being, upon the face of said plat so made, certified, acknowledged, and recorded as aforesaid, plainly designated and named "Michigan avenue," extending from the north line of said fractional section 15, said north line being the center line of Madison street, in the now city of Chicago, extended eastwardly to Lake Michigan, to the south boundary of said fractional sectional section 15, to wit, the present center line of Twelfth street, in said city of Chicago, excepting only from the southern portion thereof one block of ground numbered 23 upon said plat, said block being about 500 feet in length east and west and 200 feet in width north and south, divided into six lots, numbered respectively 1, 2, 3, 4, 5, and 6; that, excepting the said block 23 so located as aforesaid, all of that portion of said fractional section 15 lying east of the present west line of Michigan avenue, in said city of Chicago, was left by the said subdivision and the plat thereof open and undivided ground, designated upon said plat "Michigan avenue"; and this respondent further states that said subdivision so made by said board of canal commissioners as hereinbefore recited was designated and has ever since been known as "fractional section 15, addition to Chicago," and that the plat thereof, duly executed, certified, acknowledged, and recorded, was filed for record in the recorder's office of Cook county, in the State of Illinois, on or about the 18th day of June, 1836; that the said plat, under and by virtue of the laws of the State of Illinois then in force, became and was a conveyance of all that portion of fractional section 15 designated thereon as Michigan avenue to the municipality then and since known as the city of Chicago, in trust for public use, according to the designations appearing upon the face of said plat; and this defendant therefore denies that the said strip of ground so designated upon said plat as Michigan avenue has not been granted, sold, or conveyed by any legal or competent authority or that the same remains or has been at any time since the making and recording of the said plat subject to sale either by the said canal commissioners, canal trustees, or the State of Illinois for the benefit of the said Illinois and Michigan canal or any party or parties representing or controlling said canal.

Answer I. C. R. B.
Co. to amended
information,
filed May 3, 1880.

Answer L. C. R. R.
Do. to amended
information,
Filed May 3, 1886.

This respondent, further answering, says that it has no knowledge or information as to the exact location of the shore of Lake Michigan in front of fractional section 15 aforesaid at the time of the making and recording of the said plat as hereinbefore stated, nor is it advised as to the exact or approximate distance of the west line of said fractional section 15 from the shore of said lake; but this defendant, upon information and belief, says that from the west line of said fractional section 15 to the west line of Michigan avenue, as designated upon the said plat, the distance is and always has been about 860 feet, and that the portion of said fractional section 15, whether the same was of greater or less width, lying east of the west line of said Michigan avenue, excepting block 23 aforesaid, constituted Michigan avenue as laid down and designated upon said plat.

This respondent, further answering, admits that by the act of March 2, 1837, hereinbefore referred to, it was made the duty of the commissioners of said Illinois and Michigan canal to proceed immediately with the prosecution and completion of said canal upon the plan adopted therefor, and they were authorized to sell the lands of the State held to aid in the construction of said canal in and in the vicinity of the city of Chicago, with other property as might be necessary to produce the sum of one million of dollars, and the governor of the State was authorized to borrow upon the credit of the State the sum of \$500,000, which should be expended in the construction of said canal during the year 1838, in addition to the moneys arising from the sale of said land and which might then be in the treasury of said board of canal commissioners; that work upon said canal was proceeded with, money was borrowed, and debts and liabilities were incurred therefor; that various legislation was had from time to time respecting the said canal and the moneys expended and to be expended thereon, and the said State of Illinois, in execution of the said legislative authority and in the prosecution of the work upon said canal and other works of internal improvement then in progress upon the credit of the State, became greatly embarrassed in its financial condition, and that the said financial embarrassments of the State thus occasioned gave rise to the passage of an act of the legislature of the State of Illinois, approved on the 21st day of February, 1843, entitled "An act to provide for the completion of the Illinois and Michigan canal and for the payment of the canal debt."

referred to and partially set forth in the said amended information; and this respondent, admitting that the said act of February 21, 1843, so far as set forth in said amended information, is stated with substantial accuracy, asks leave upon the hearing of this cause to produce and refer to the whole of said act as it may be advised is necessary and proper, and especially to the nineteenth section thereof, which is as follows:

Answer J. C. R.
Co. to amend
information,
filed May 3, 188

77 "Section 19. Whenever the trust created by this act shall have been fully executed and performed by the said trustees, the said canal and the canal property that may then remain, shall revert to the State, and the State hereby reserves the right of paying off the bonds and certificates to be paid by the said trustees and the incidental expenses paid by them and the interest thereon; and the said trustees shall then assign the said canal and the remaining canal property and assets of the State."

This respondent, further answering, admits that afterwards the legislature of the State of Illinois passed an act, which was approved March 1, 1845, entitled "An act supplemental to an act to provide for the completion of the Illinois and Michigan canal and for the payment of the canal debt," by which it was provided in substance, amongst other things, that after the completion of the contract for the loan of one million six hundred thousand dollars as contemplated in said act of February 25, 1843, and the trustees were appointed as in said act contemplated, the governor of the State should execute and deliver, under the seal of the State, a deed of trust to the said trustees of all the property and effects mentioned in the tenth section of said act of February 21, 1843, including the lands and lots which were then unsold, donated by the United States to the State of Illinois to aid in the construction of said canal, to be held by said trustees in trust, as in said act provided.

This respondent, further answering, also admits upon information and belief that the loan of one million six hundred thousand dollars provided for in and by the said acts of February 21, 1843, and March 1, 1845, was subscribed for and taken in strict pursuance of the provisions thereof, and that the subscribers to said loan became entitled to the privileges

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

conferred upon them by the said acts, and in pursuance thereof elected William H. Swift and Jacob Leavitt as trustees of the Illinois and Michigan canal, and that Jacob Fry was named trustee for said board by the governor of the State, and that the governor of the State thereupon executed a deed to the said trustees, reciting the said acts of February 21, 1843, and March 1, 1845, and granted and conveyed to the said trustees all the said canal lands then remaining unsold; but this respondent expressly denies upon information and belief that any portion of said fractional section fifteen lying east of Michigan avenue, except it may have been portions of said block twenty-three in said fractional section fifteen, was, by the said deed or otherwise, granted and conveyed to the said trustees, or that the title to any portion of that part of the said fractional section fifteen designated upon the plat of the subdivision as aforesaid as Michigan avenue remained in the State of Illinois at the time of the execution of the said deed, to be granted or conveyed thereby or otherwise; and this respondent upon information and belief expressly states it to be true that long prior to the execution of the said deed by the governor of the State of Illinois to the said canal trustee, as in said amended information is alleged, the board of the commissioners of the Illinois and Michigan canal had sold and
78 conveyed, in pursuance of the authority vested in them for that purpose, all the lots and blocks fronting upon Michigan avenue, as designated upon the plat of said fractional section fifteen addition, to various persons, who purchased and paid for the same, relying upon the said plat of the subdivision of said fractional section fifteen so made, certified, acknowledged, and recorded as aforesaid, and that the said purchasers, their heirs and assigns, have ever since held owned, controlled, and occupied the said lots and blocks, and have so owned, controlled, and occupied the same for more than thirty years prior to the filing of the said original information.

This respondent, further answering, says that between the date of the execution of the said conveyance by the governor of the State of Illinois to the said trustees of the Illinois and Michigan canal, as hereinbefore recited, and the year 1871 the said Illinois and Michigan canal and all the property pertaining thereto remained under the management and control of the said trustees so elected and appointed under

and in pursuance of the said acts of the legislature of the State of Illinois of 1843 and 1845 and their successors, that during that time the said canal was completed, the lands appropriated as hereinbefore recited in aid of the construction thereof principally sold, and the proceeds thereof applied in pursuance of the said acts of legislation, and that about the beginning of the year 1871 all the debts of the State of Illinois growing out of the construction of the said canal and all the debts of the said canal trustees incurred by them in such construction, together with the expenses relating thereto and to the management thereof, had been fully paid, and that during the year 1871 and on or about the 19th day of August, A. D. 1871, the said canal trustees, in pursuance of an act of the legislature of the State of Illinois for that purpose duly passed, released and conveyed to the State of Illinois the said canal and all the property, rights, privileges, and franchises pertaining thereto and surrendered the same to certain persons, designated as canal commissioners, to receive, manage, and control the same for the benefit of said State; and this respondent therefore claims and insists that whatever rights, if any, the said canal trustees elected and appointed under the said acts of 1843 and 1845 may have acquired by conveyance or otherwise in any portion of said fractional section 15, and which remained in said trustees at the date of the release and reconveyance aforesaid, was reconveyed to and became vested in the said State of Illinois under and by virtue of the conveyance of said trustees aforesaid to said State, made on or about the 19th day of August, 1871, as aforesaid, and that any and all grants made by the said State relating to said fractional section 15 or any portion thereof were binding upon the said State from the date of the making of such grants, and became absolute and effectual as conveyances of the said State at least upon the execution of the release and conveyance from the said canal trustees to said State herein last referred to, if not before.

This respondent, further answering, admits upon information and belief that the said canal is now and ever since its completion, in the year 1848, has been in active use during the season of navigation, and that it has all the time required supervision and care, entailing the necessary employment of a large number of subordinates and also the expenditure of money for repairs thereon, and that said canal

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1880

Answer I. C. R. R.
Co. to amended
information.
Filed May 3, 1886.

is at all times more or less liable to accidents and injury; but this respondent denies that such accidents or injuries have been frequent or extensive, or that the same have required expenditures of large sums of money in the reparation of said canal. This defendant, however, admits upon information and belief that the legislature of the State of Illinois at its session commencing in January, 1879, and also at its session commencing in January, 1881, made appropriations of money out of the treasury of the State for the necessary repairs and expenses incurred in the operation of said canal; and that the State of Illinois by an act entitled "An act ceding the Illinois and Michigan canal to the United States," approved April 28, 1882, tendered to the United States the said canal, its right of way, and all its appurtenances, and all the right, title, and interest which the State had in any real estate ceded to it by the United States for canal purposes upon condition that the United States would make and maintain an enlarged water-way and canal from Lake Michigan to the Illinois and Mississippi rivers, as in said amended information is set forth; but this respondent says that the said grant has never been accepted by the United States, and it expressly denies that the said acts in any way justify the resumption of any title in said canal lands or any portion thereof which has heretofore been granted by the State or which by the legislation of the State has passed beyond the control of said State as property liable to be sold for the benefit of said canal or otherwise; and this respondent, claiming the benefit of all the several acts of legislation hereinbefore referred to relating to said canal, its management, revenues, income, and property, begs leave to produce and refer to the same on the hearing of this cause, and makes the same and every of said acts a part of its answer.

And this respondent, further answering, admits that by an act of Congress approved September 20, 1850, the United States granted to the State of Illinois, in aid of the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with one branch of the same to Chicago, on Lake Michigan, and another branch by way of Galena, in Jo Daviess county, to the city of Dubuque, in the State of Iowa, the right of way over the public lands and the right to take necessary materials of earth, stone, timber, etc., from the public lands for the construction of said road, said

right of way not to exceed, however, two hundred feet in width, and that, in addition to such right of way and other rights aforesaid, there was also granted to said State of Illinois for the purpose aforesaid alternate sections of land, designated by even numbers, for the distance of six miles on each side of the said right of way of said road and branches.

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1880.

This respondent, further answering, also admits that the said State of Illinois afterwards and by an act of the General Assembly of said State, duly approved on the 10th day 80 of February, 1851, incorporated this respondent, The "Illinois Central Railroad Company," and by the same act granted to this respondent all the lands and privileges aforesaid granted by the United States to the State of Illinois and the right of way through the public lands in said State, and in addition thereto all such lands, waters, and materials belonging to the State throughout the length of said road as said company might require for the location of depots and stopping stages, for the purpose of constructing bridges and embankments, and for station grounds, engine houses, shops, and other buildings necessary for the construction, completion, altering, maintaining, preserving, and operating said railroad, with authority to acquire lands for the purposes aforesaid by purchase and the exercise of the right of eminent domain, and it was also provided in said act of incorporation that nothing in said act contained should authorize this respondent to make location of their track within the limits of any incorporated city without the consent of the common council of said city.

And this respondent also admits that by an act of the General Assembly of the State of Illinois approved June 22, 1852, this respondent was empowered and authorized to locate, construct and operate a lateral branch and track from its eastern branch as then located at or near Twelfth street, in said city of Chicago, to the south branch of the Chicago river, on such terms and conditions and in such manner as might be stipulated between the common council of the city Chicago and said company, all of which said grants and authority from the said State of Illinois to this respondent will more fully and at large appear by reference to the said act of February 10, 1851, and by the said act of June 22, 1852, both of which are hereby referred to and made a part of this answer.

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1886.

And this respondent, further answering, also admits that, in pursuance of the acts above referred to and for the purpose of complying with the provisions of the charter of this respondent in respect to the location of its tracks within the corporate limits of the city of Chicago, it procured from the common council of said city leave and permission to locate its tracks within said limits, and the said leave and permission was granted to this respondent by an ordinance of said city passed on the 14th day of June, 1852, which, being accepted by this respondent, was made the basis of a contract between this respondent and the said city, and that the license and permission so granted and conferred by said contract authorized this respondent to lay down, construct, and maintain within the limits of the said city of Chicago and along the margin of the lake adjacent to the same a railroad with one or more tracks, and to have the right of way and all powers incident thereto necessary for such purpose, upon the terms and conditions in said ordinance expressed, a copy of which said ordinance is hereto attached and marked "Exhibit A" and made a part of this answer.

And this respondent admits that by said ordinance it was provided among other things, that the road of this respondent should enter said city at or near the intersection of its southern boundary with Lake Michigan, and, following
81 the shore on or near the margin of said lake northerly to the southern boundary of the open space known as Lake park, in front of fractional section fifteen, should be thence continued northerly across the open space in front of the said fractional section fifteen to such ground as said company might acquire for depot purposes between the northerly line of Randolph street, in said city, and the Chicago river; and this respondent states the fact to be that the route described in the said ordinance within the limits of the said city of Chicago was the one selected and adopted by this respondent for the location and construction of its railroad within the said limits under and in pursuance of its charter, prior to the passage of said ordinance, and is the same upon which the railroad of the respondent was constructed about the year 1853, and has ever since been maintained.

And this respondent also admits that by said ordinance the city disclaimed any undertaking to obtain for this respondent

ent any right of way or other right, privilege, or easement not in the power of the city to grant or confer, and also all liability for the acts of this respondent.

Answer I. C. R. B.
Co. to amended
information,
filed May 3, 1882

And this respondent also admits that in said ordinance the consent of the said city was given to this respondent to enter upon, use, and operate for its line of road, and to protect the same from the lake, a width of 300 feet between the southern boundary of said public ground near 12th street and the north line of Randolph street, in said city, the west line of said ground not to be less than 400 feet east of the west line of Michigan avenue and parallel thereto.

And this respondent, in consideration of the license, permission, and authority secured by said ordinance, agreed to erect and complete within three years from the acceptance thereof and ever thereafter to maintain a continuous wall or breakwater of regular and sightly appearance, not to exceed in height the general level of Michigan avenue, from the northern side of Randolph street to the southern boundary of Lake park aforesaid, at the distance of not more than 300 feet east from and parallel with the west line of this respondent's right of way, located and occupied by this respondent as aforesaid, and to continue said wall or breakwater to the southern boundary of the city at such distance outside of the track of this respondent's road as might be convenient, the same to be of sufficient strength and magnitude to protect the ground on the margin of said lake for the entire distance from the north line of said Randolph street to the southern boundary of said city from damage or injury by the action of the waters of Lake Michigan.

And this respondent, further answering, admits that the said ordinance of June 14, 1852, was duly accepted by this respondent, and that the provisions thereof were embodied in and became a contract between the said city of Chicago and this respondent.

And respondent insists and charges it to be true that it has faithfully observed and performed the said contract
82 on its part and is still rightfully entitled to the possession and enjoyment of all the rights and privileges thereby secured.

wer I. C. R. R.
x. to amended
formation,
ed May 3, 1886,

And this respondent, further answering, also admits that on the 10th day of September, 1855, a further ordinance was passed by the common council of the said city of Chicago by which the consent of the said city was secured to this respondent for the use of a triangular piece of ground lying west of the line of the right of way of this respondent and adjacent thereto and bounded on the north by the north line of Randolph street and on the third side by a line commencing in said north line of said Randolph street three hundred feet east of the west line of Michigan avenue, running thence to a point in the west line of respondent's right of way two hundred feet south from said north line of Randolph street, and that afterwards and on the 15th day of September, 1856, by ordinance of that date, the said city granted to this respondent permission and license to enter upon and use for the purposes of its road and other works a space between the breakwater provided for in the ordinance aforesaid of June 14, 1852, as then constructed and a line drawn from a point on said breakwater seven hundred feet south of the north line of Randolph street extended and running thence on a straight line to the southeast corner of the breakwater, then constructed, east of the depot grounds of this respondent aforesaid, and thence to the Chicago river.

And this respondent, further answering, states the fact to be that immediately after the passage of the said ordinance last mentioned, the provisions of which were accepted by this respondent, it took possession of the said two pieces of land described in said ordinances and improved the same and has ever since been in possession and occupancy thereof for the purposes of its railroad, and that the said pieces of ground were within the limits of the said city of Chicago as defined by its charter at the times of the passage of the said ordinances respectively, and this respondent claims and insists that it has been and still is in the rightful possession and occupancy thereof; but this defendant has never assumed or pretended to assume that the said ordinances granted to this respondent the title to public lands of the State either within or without its right of way, 200 feet in width, or that the said city could grant to it title to such public lands; and it admits that the limits of its right of way, specially as such are determined by its charter and amendments thereof, which are laws of the State of Illinois, and the location and occupancy of the same in pursuance of said laws.

This respondent, further answering, admits that it constructed the breakwater, a protection against the waters of the lake, mentioned in said ordinance of 1852 in accordance with the terms of the contract entered into between this respondent and said city, from the north line of Randolph street south along the front of said city, and that it entered upon the said strip of ground, 300 feet in width, extending from the southern boundary of the public ground near

Twelfth street to the northern line of Randolph street 83 and lying 400 feet east of the west line of Michigan avenue and upon the triangular parcels of land above described for the purpose of operating its railroad within the limits of said city, and it claims and insists that the same were and are necessary for the maintenance and complete operation of its said railroad, and that it has the right to hold and use the same.

And this respondent further says that it has been in the actual possession and occupation of the said strip of ground, 300 feet in width, above described or of so much thereof as lies west of and adjoining the exterior line of the breakwater now maintained by this respondent between the north line of Randolph street and the southern boundary of the public ground near Twelfth street continuously since the year 1853 and of the triangular parcels of ground above referred to continued only since the year 1856 under a claim of title in each case exclusive of any other right.

And this respondent avers that the cause of action in respect of the several pieces or parcels of land above referred to, if any there may be, arising to the complainants on account or by reason of the allegations and complaints in that behalf in their said amended information contained did not accrue to the complainants within twenty years before the commencement of this suit, and this allegation the respondent makes in bar of the said information and prays that it may have the same benefit therefrom as if it had pleaded the same.

And this respondent also submits to this honorable court that all and every of the matters in the said amended information mentioned and complained of in respect of the several pieces or parcels of land aforesaid are matters which may be tried and determined at law and with respect to which the said complainants are not entitled to any relief from a court

Answer I. C. R. B.
Co. to amended
information,
filed May 3, 1886

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1886.

of equity, and this respondent prays to have the same benefit of this defense as if it had demurred to so much of the said information as relates thereto.

This respondent, further answering, admits that in the year 1852 and at the time of the construction of this respondent's railroad within the limits of said city of Chicago a considerable portion of what is now solid ground between Randolph and Twelfth streets, in said city, and west of this respondent's right of way and east of the west line of Michigan avenue was covered by water. This respondent, however, does not know and is not informed whether the solid ground at any time prior thereto extended beyond the west line of its right of way, but it says that in the year 1852 the waters of the lake were advancing upon the shore and at that time had at some points between Randolph street and Twelfth street aforesaid nearly reached the eastern boundary of Michigan avenue as then and now laid out and in use as a public street; and it also says that since the year 1852 and especially in the year 1872, immediately after the great fire in the city of Chicago, the space between the west line of Michigan avenue, as designated on the map or plat of "fractional section 15, addition to Chicago," aforesaid, and the right of way of this respondent, so far as the same was under the waters of said Lake Michigan, was used as dumping
84 ground for the deposit of the waste and debris of city, and that by such means and without expense to the said city the ground between Michigan avenue and this respondent's right of way has been filled up to or nearly to a level with said Michigan avenue, and since about the year 1872 or 1873 the same has been and is now solid ground, made so in the manner and by the means aforesaid.

This respondent, further answering, admits, upon information and belief, that in the year 1822 township thirty-nine north, range fourteen east, of the third principal meridian was surveyed under authority of the United States, pursuant to the laws thereof, and at that time according to such survey the south line of fractional section ten and the north line of fractional section fifteen met the shore of Lake Michigan at the same point, said lines being the same; and it may be, but of that this respondent is not advised, that the said line between the waters of Lake Michigan and the west line of said sections was 1,141 feet in length; and it may also be

true, but this respondent is not advised in respect thereto, that the south line of fractional section fifteen was 1,482 feet in length, and that the shore of Lake Michigan between the north and south lines of said fractional section was nearly a straight line.

Answer I. C. R. R.
Co. to amend
information,
filed May 3, 1866.

This respondent, further answering, says that it is not at present able to state, either upon knowledge, information, or belief, whether the map attached to the said information, purporting to show the proximate position of the shore line of said lake as laid down on the survey of 1822 and as it exists at the present time and the changes which have taken place in said shore line, is reasonably or approximately correct in its representations. It admits that the said map pretends to show the conditions existing in respect to the said shore line as described in said information; but, not alleging any inaccuracy of said map or admitting its correctness in the particulars shown therein or otherwise, this respondent will, upon the hearing of this cause, furnish, as it may be able, for the use of the court, such maps, tracings, and drawings as it may have or can procure touching the matters claimed to be represented by the map attached to said information, if the same shall be deemed necessary.

And this respondent, further answering, admits that in the year 1869 the legislature of the State of Illinois passed an act which became a law on the 16th day of April, 1869, entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," which said act is the same referred to in said amended information as having taken effect on the said 16th day of April, A. D. 1869, and is in the words and figures following, to wit:

"Section 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, That all right, title and interest of the State of Illinois in and to so much of fractional section fifteen (15), township thirty-nine (39), range fourteen (14), east of the third principal meridian in the city of Chicago, county of Cook and State of Illinois, 85 as is situated east of Michigan avenue, and north of Park row and south of the south line of Monroe street, and west of a line running parallel with and four hundred

Answer I. C. R. R.
Co. to amended
Information,
filed May 3, 1886.

feet east of the west line of said Michigan avenue—being a strip of land four hundred feet in width, including said avenue, along the shore of Lake Michigan, and partially submerged by the waters of said lake—are hereby granted, in fee, to the said city of Chicago, with full power and authority to sell and convey all of the said tract east of said avenue, leaving said avenue ninety (90) feet in width in such manner and upon such terms as the common council of said city may by ordinance provide; provided, that no sale or conveyance of said property, or any part thereof, shall be valid unless the same be approved by a vote of not less than three-fourths of all the aldermen elect.

"Sec. 2. The proceeds of the sale of any and all of said lands shall be set aside, and shall constitute a fund, to be designated as the 'park fund' of the said city of Chicago, and said fund shall be equitably distributed, by the common council, between the south division, the west division, and the north division of the said city, upon the basis of the assessed value of the taxable real estate of each of said divisions, and shall be applied to the purchase and improvement, in each of said divisions, or in the vicinity thereof, of a public park or parks, and for no other purpose whatsoever.

"Sec. 3. The right of the Illinois Central Railroad Company, under the grant from the State in its charter, which said grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent. of its gross earnings, and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands submerged or otherwise lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue, in fractional sections ten (10) and fifteen (15), township and range as aforesaid, is hereby confirmed, and all the right and title of the State of Illinois, in and to the submerged lands constituting the bed of Lake Michigan, and lying east of the tracks and break-water of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round house and machine shops of said company, in the south division of the said city of Chicago, are hereby granted in

fee to the said Illinois Central Railroad Company, its successors and assigns; provided, however, that the fee to said lands shall be held by said company in perpetuity, and that the said company shall not have power to grant, sell or convey the fee to the same, and that all gross receipts from use, profits, leases or otherwise of said lands, or the improvements thereon, or that may hereafter be made thereon, shall form a part of the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall forever pay into the State treasury, semi-annually, 86 the per centum provided for in its charter, in accordance with the requirement of said charter; and provided, also, that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation, nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns, from any act of the General Assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor; and provided, further, that any of the lands hereby granted to the Illinois Central Railroad Company shall not, during the continuance of such leasehold estate or of such occupancy, be exempt from municipal or other taxation.

"Sec. 4. All the right and title of the State of Illinois in and to the lands, submerged or otherwise, lying north of the south line of Monroe street and south of the south line of Randolph street and between the east line of Michigan avenue and the track and roadway of the Illinois Central Railroad Company, and constituting parts of fractional sections ten (10) and fifteen (15), in said township thirty-nine (39), as aforesaid, are hereby granted in fee, to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said companies may require; provided, that upon all gross receipts of the Illinois Central Railroad Company, from leases of its interest in said grounds, or improvements thereon, or other uses of the same, the per centum provided for in the charter of said company shall forever be paid, in conformity with the requirements of said charter.

"Sec. 5. In consideration of the grant to the said Illinois Central, Chicago, Burlington and Quincy, and Michigan

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1888.

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1886.

Central Railroad Companies of the land as aforesaid, said companies are hereby required to pay to said city of Chicago the sum of \$800,000, to be paid in the following manner, viz: \$200,000 within three months from and after the passage of this act, \$200,000 within six months from and after the passage of this act, \$200,000 within nine months from and after the passage of this act, \$200,000 within twelve months from and after the passage of this act; which said sums shall be placed in the park fund of the said city of Chicago, and shall be distributed in like manner as is hereinbefore provided for the distribution of the other funds which may be obtained by said city from the sale of the lands conveyed to it by this act.

"Sec. 6. The common council of the said city of Chicago is hereby authorized and empowered to quitclaim and release to the said Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company and the Michigan Central Railroad Company, any and all claim and interest in and upon any and all of said land, north of the south line of Monroe street, as aforesaid, which the said city may have by virtue of any expenditures and improvements thereon, or otherwise, and in case the said common council shall neglect or refuse thus to quitclaim and release to the said
87 companies as aforesaid within four months from and after the passage of this act, then the said companies shall be discharged from all obligation to pay the balance remaining unpaid to said city.

"Sec. 7. The grants to the Illinois Central Railroad Company contained in this act are hereby declared to be upon the express condition that the said Illinois Central Railroad Company shall perpetually pay into the treasury of the State of Illinois the per centum on the gross or total proceeds, receipts or income derived from said road and branches stipulated in its charter, and also the per centum on the gross receipts of said company reserved in this act."

"This act shall be a public act, and in force from and after its passage."

And this respondent, further answering, expressly denies that no action was had or taken in respect to the grants made by and contained in said act, so far as they related to this

respondent. On the contrary thereof, this respondent insists and states the fact to be that within a reasonable time after the passage of said act, to wit, on the 6th day of July, A. D. 1870, this respondent formally accepted the same and all the provisions thereof relating to this respondent and caused due and proper notice of such acceptance to be filed and made a matter of record in the office of the secretary of state for the State of Illinois, where, as this respondent is informed and believes, the said notice of acceptance now remains; and this respondent has ever since acted upon and considered and treated the terms and provisions of said act, so far as they related to this respondent and in all other respects, as binding and effectual for the accomplishment of the purposes therein expressed and according to the literal meaning, form, and effect of the language of said act; that, relying upon the provisions of said act, this respondent had, from time to time after the passage thereof and before the attempted repeal of the said act, as hereinafter set forth, and before the filing of the original information in this cause, entered upon and formally taken possession of, reclaimed, and reduced to profitable use considerable portions of the submerged lands referred to and described in said act, which are the same mentioned in said amended information, and in so doing had expended a large sum of money, to wit, about the sum of five hundred thousand dollars; and the lands so reclaimed have been also otherwise improved at great expense and are now in use by this respondent for the purpose of its business and are necessary for such purposes.

This respondent, further answering, insists that by the passage of said act the State of Illinois granted to this respondent the absolute title to said submerged lands lying east of its right of way aforesaid and constituting a part of the bed of Lake Michigan to the full extent therein described; that the said grant was a grant in praesenti and took effect immediately upon the passage of said act to the fullest extent and according to the terms of said act; that said act vested in this respondent the real and actual title to the said submerged lands therein described, and that the said act and the acceptance of its provisions by this respondent as aforesaid constituted a valid and binding contract between
88 the State of Illinois and the people thereof, on the one part, and this respondent, on the other part, which could

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1880.

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

not be rebuked, modified, or impaired without the consent of both parties thereto.

This respondent, further answering, insists that the said act was and still remains valid and binding upon the State of Illinois and the people of said State; that the said State, acting by and through its General Assembly, had full power and authority to make the said grants in said act contained, so far as the same related to this respondent, and that this respondent was and still is under its charter and the provisions of said act fully competent to take said grants and enjoy the benefit and advantages thereof in the manner and upon the terms in said act specified.

This respondent, further answering, expressly denies that said act was inoperative as to this respondent by reason of any peculiarity of the terms in which the grants thereof were expressed.

It admits, however, that whilst the said act granted absolutely to this respondent the fee-simple title to the submerged lands, which this respondent insists was properly and effectually granted by said act, a proviso was subjoined to said grant, attempting to withhold from this respondent the power and right to alienate or convey the same; that this respondent had at all times assumed that the provisions of said act, including said proviso and all other provisos appended to said grant, were valid, and so treated the same, but this respondent is now advised by counsel, and upon such advice alleges and insists, that if the said provisos or any of them are inconsistent with the grant preceding the same and the limitations attempted thereby upon the right and authority of this respondent to alienate and convey the said lands are repugnant to or at variance with the terms of said grant, as alleged in the said information, such provisos and attempted limitations would be and are inoperative and of no avail, and cannot be enforced as against the absolute title in fee granted to this respondent.

This respondent also denies that said provisos and the limitations thereby attempted to be placed upon the absolute title in fee granted to this respondent were or can be construed to be a reservation of authority to the State of Illinois to revoke the grant made to this respondent, or that the

title granted by said act to this respondent was, by reason of said provisos and attempted limitations or for any other cause, subject to be resumed by the said State without the consent of this respondent, or that the same ever has been or can be resumed by said State without such consent.

Answer I. C. R. R.
Co. to amended
information,
filed May 3, 1886

This respondent also denies that there was no consideration for said grant, and insists that by the terms of said act and its acceptance thereof it became bound to the said State to perform all the duties and obligations therein imposed upon it, and that the said duties and obligations are a good, valid, and sufficient consideration for all the rights and privileges granted to this respondent.

And this respondent, further answering, admits that in the year 1873 the General Assembly of the State of Illinois passed an act entitled "An act to repeal an act entitled 'An act in relation to a portion of the submerged lands and Lake

Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' in force April 16th, 1869," which said act was in the words and figures following—that is to say:

"Sec. 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, that the act entitled 'An act in relation to a portion of the submerged lands and Lake Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' in force April 16th, 1869, be and the same is hereby repealed." Which said last-mentioned act was approved by the governor of the said State of Illinois on the 15th day of April, 1873, and, if valid, took effect as a law on the 1st day of July, in said year.

And this respondent, further answering, says that the passage of said act of the 15th day of April, A. D. 1873, and the provisions thereof have never been assented to, ratified, or acquiesced in by this respondent, and it expressly denies the authority of the General Assembly of the State of Illinois alone to annul the grants made by the said act of April 16, 1869; that said act of April 15, 1873, was an attempt on the part of the General Assembly of said State to impair and annul the contract between the said State and this respondent, resulting from the said act of April 16, 1869, and the

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

acceptance thereof by this respondent, and was therefore in violation of the first clause of section 10 of article 1 of the Constitution of the United States, which prohibits the State from passing any law impairing the obligation of contracts.

This respondent, further answering, says that the said act of April 15, 1873, was and is an attempt on the part of the said State, represented by its General Assembly, to deprive this respondent of property and vested rights and interests without due process of law, and is therefore in violation of the provisions of the first section of the 14th amendment to the Constitution of the United States, which provides, in substance and effect, that no State shall deprive any person of life, liberty, or property without due process of law or deny to any person within its jurisdiction the equal protection of the laws; for which reasons and because of the repugnancy of said act of April 15, 1873, to the provisions of the Constitution of the United States aforesaid, this respondent insists that the said act was and is wholly inoperative and void.

And this respondent further says that the said act of the General Assembly of the State of Illinois of the 15th of April, 1873, is inoperative and void and should be so adjudged, for the additional reason, amongst others, that said act and the provisions thereof are repugnant to and in violation of that clause of the constitution of the State of Illinois, in force at the time of the passage of said act, which provides that "no contract, obligation, or liability of the Illinois Central Railroad Company" (this respondent) "to pay any money into the State treasury, nor any lien of the State upon or right to tax property of said company, in accordance with the provisions of the charter of said company, approved February 90 10th, in the year of our Lord 1851, shall ever be released, suspended, modified, altered, remitted, or in any manner diminished or impaired by legislative or other authority."

This respondent, further answering, denies that it has ever encroached systematically or otherwise upon the domain of the State by procuring ordinances from the city of Chicago or in any other manner, or that it has ever pretended to have or assumed under the ordinances of said city any other or greater rights or privileges than were thereby conferred upon it. It admits, however, that, having become the owner of all the land fronting on Lake Michigan between the north

line of Randolph street and the Chicago river, being a part of fractional section ten (10) hereinbefore referred to, it has from time to time, for the purposes of its business, filled up a portion of the bed of Lake Michigan directly east of and adjoining said land, and has occupied and still is occupying the same for the purposes of its business and in furtherance of the commerce of the city of Chicago, and claims and insists that it had and has the right so to do.

Answer L. C. R. E.
Co. to amended
information,
filed May 3, 1880.

But this respondent expressly states that all the improvements so made as last aforesaid have not in any manner interfered with or obstructed the navigation of the waters of Lake Michigan, and that the same are additions for business purposes made to the land owned by it upon the margin of said lake.

Respondent admits that the improvements in contemplation by it between the north line of Randolph street and the Chicago river were, in or about the year 1870, suspended in consequence of an information filed in the circuit court of the United States for the northern district of Illinois on behalf of the United States for an injunction against the prosecution of said improvements, on the ground that they would interfere with the general plan adopted or which might be adopted by the United States for the construction of an outer harbor; that in consequence of the filing of said information as aforesaid a conference was had between the officers of this respondent and the proper officers of the War Department of the United States Government, the result of which was that the plan of said proposed improvements was agreed upon and the same were thereafter proceeded with and completed in pursuance of said agreement; but this respondent expressly denies that it has entered upon and taken possession of any portion of the bed of Lake Michigan in front of its breakwater and commenced to fill the same under a claim that any ordinance or ordinances of the city of Chicago aforesaid conferred upon it the title of and right to use land three hundred feet in width, or that it has ever been prevented by the request of the officers of the United States or otherwise from entering upon and taking possession of the submerged lands east of the breakwater constructed by it in front of fractional section 15 aforesaid for any other cause or reason than that such possession and the improvements in contemplation by this respondent might interfere with plans of the United

Answer I. C. R. R.
Co. to amended
Information,
Filed May 3, 1886.

States Government for the construction of an outer harbor.

91 This respondent, further answering, admits that it has begun and is now prosecuting the work of filling with earth and other materials a portion of what was, at the date of the passage of said act of 1869, the bed of Lake Michigan, north of the south line of lot 21, near its round-house, mentioned in said act; but this defendant alleges it to be true that it is the owner in fee of all the ground bordering upon said lake at the points and places where said improvements are in progress; that the said improvements do not extend and are not intended to extend into said lake, to the detriment of the navigation thereof, and will not, when completed, in any manner interfere with the uses of the waters of said lake for purposes of commerce, and that it holds and claims to hold the title to the submerged lands thus being redeemed from the waters of said lake and the possession of the same by virtue of its charter and also under and by virtue of the said grants of the State of Illinois contained in the act of the General Assembly of said State herein referred to as the act of 1869 and of its rights as riparian owner; that the enlargement of grounds thus in contemplation is desirable and necessary for the business uses and purposes of this respondent and in order to enable it to give effect to business arrangements entered into by it with other railroad companies having the terminus of their lines of road in said city of Chicago, which arrangements are important and valuable to this respondent, as well as to the city of Chicago and the people of the State of Illinois.

This respondent, further answering, denies that it claims or ever has claimed the right to fill up the bed of Lake Michigan to an indefinite extent or to any extent detrimental to the interest of the commerce of said lake as the same might be adjudged by the proper authorities of the United States; but it admits that it has claimed and does now claim the right to improve the shore of Lake Michigan for the purposes and in the interest of its business and for the promotion of the commerce and navigation of said lake within the limits of its riparian ownership, and also as prescribed by the said act of the General Assembly of the State of Illinois of 1869.

This respondent, further answering, admits that in tak-

ing possession of, improving, and making available for business purposes the shallow waters of said lake adjacent to the eastern limits of said city of Chicago it has been and will be subject to all the conditions, requirements, and obligations imposed upon it by and under the said act of the General Assembly of the State of Illinois of April 16, 1869, and that by said act and the acceptance thereof by this respondent the State of Illinois is and should be adjudged to be estopped from claiming or asserting as against this respondent any right, title, or interest in respect to the matters alleged and set forth in the said amended information.

Answer I. C. R. R.
Co. to amended
information,
Filed May 3, 1888.

And, having fully answered the said information, this respondent prays to be hence dismissed with its reasonable costs and charges about its suit in this behalf most wrongfully sustained.

92 And this respondent will ever pray, etc.

ILLINOIS CENTRAL RAILROAD,
COMPANY.

[Seal.] By JAS. C. CLARKE, Its President.

Attest: JOHN DUNN, Ass't Secretary.

JNO. N. JEWETT,

Sol'c'r for D'ft Ill. C. R. R. Co.

B. F. AYER, Of Counsel.

EXHIBIT "A."

An ordinance concerning the Illinois Central Railroad.

Ordinance con-
cerning I. C.
R. R. Co.

Be it ordained by the common council of the city of Chicago:

Section 1. That permission is hereby granted to the Illinois Central Railroad Company to lay down, construct and maintain within the limits of the city of Chicago, and along the margin of the lake within and adjacent to the same, a railroad with one or more tracks, and to operate the same with locomotive engines and cars, under such rules and regulations with reference to speed of trains, the receipt, safe keeping and delivery of freight, and arrangements for the accommodation and conveyance of passengers, not inconsistent

Ordinance con-
cerning I. C.
R. R. Co.

with the public safety, as said company may, from time to time, establish, and to have the right of way and all powers incident to and necessary therefor, in the manner and upon the terms and conditions following, to wit: The said road shall enter said city at or near the intersection of its south boundary with Lake Michigan, and following the shore on or near the margin of said lake northerly to the southern bounds of the open space known as Lake park, in front of canal section 15, and continue northerly across the open space in front of said section 15, to such grounds as the said company may acquire between the north line of Randolph street and the Chicago river, in the Fort Dearborn addition to said city, upon which said grounds shall be located the depot of said railroad within the city, and such other buildings, slips or apparatus, as may be necessary and convenient for the business of said company. But it is expressly understood that the city of Chicago does not undertake to obtain for said company any right of way or other right, privilege or easement, not now in the power of said city to grant or confer, or to assume any liability or responsibility for the acts of said company.

Sec. 2. That said company may enter upon and use in perpetuity for its said line of road, and other works necessary to protect the same from the lake a width of 300 feet from the southern boundary of said public ground, near Twelfth street, to the northern line of Randolph street; the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue, and parallel thereto.

Sec. 3. The said company may extend their works and fill out into the lake to a point in the southern pier not less
93 than 400 feet west from the present east end of the same; thence east parallel with Michigan avenue to the north line of Randolph street extended, but it is expressly understood that the common council does not grant any right or privilege beyond the limits above specified, nor beyond the line that may be actually occupied by the works of said company. It is further expressly understood, that should any damage or obstruction occur to the harbor of Chicago, clearly traceable to the construction of said works contemplated by sections 2 and 3 hereof, then the said company shall be held responsible for the same.

Sec. 4. Permission and right of way are hereby given to the said company to construct and to maintain a side track from its main track, beginning at or south of Twelfth street, proceeding through said street, or such line as may be prescribed by the common council, westerly to the south branch of the Chicago river; thence, crossing the said south branch by a bridge or other mode, to be approved by the common council, which shall not obstruct navigation; thence proceeding northerly to Kinzie street, following, as far as practicable, the streets nearest to said branch, on such sides of the center of streets as the common council may prescribe, said track not to be laid west of the west line of Canal street; and also a track leading from the last-mentioned track, at or near its intersection with the eastern line of said south branch of the Chicago river, along the line of said south branch into Market street, following, as far as possible, the streets nearest the river, and on such sides of such streets as the common council may direct; thence along the west line of Market street, northerly to Lake street. And they may also extend the track of said road from their track or grounds south of the south pier, across the Chicago river to North Water street by means of a draw bridge or other mode which shall not obstruct navigation, and which may be approved by the common council.

Ordinance concerning I. C. R. R. Co.

Sec. 5. And the said tracks shall be so constructed, furnished and operated as to meet the demands of business upon the streets and lines through and along which they shall run. The said side tracks, the stations, depots, turnouts, switches, turn-tables, buildings and bridges along said lines, as well as the motive power to be used and the rate of speed thereon, to be subject to such regulations as the common council may from time to time prescribe for the government of side tracks of railroads within the inhabited portions of the city. Said side tracks shall be open to the use of other railroad companies and railroads connecting therewith, upon just and equitable terms, to be agreed upon by the parties interested, and, in case of disagreement, by arbitration.

Sec. 6. The said company shall erect and maintain, on the western or inner line of the ground, pointed out for its main track on the lake shore, as the same is hereinbefore defined, such suitable walls, fences or other sufficient work as will prevent animals from straying upon or obstructing its tracks,

Ordinance con-
cerning I. C.
R. R. Co.

and secure persons and property from danger. Said structure to be of suitable materials and slightly appearance, and of such height as the common council may direct, and no change therein shall be made, except by mutual consent: 94 Provided, however, that the company shall construct such suitable gates, at proper places at the ends of the streets, which are now or may hereafter be laid out, as may be required by the common council, to afford safe access to the lake; and, provided, also, that, in case of the construction of an outside harbor, streets may be laid out to approach the same, in the manner provided by law, in which case the common council may regulate the speed of locomotives and trains across them.

Sec. 7. The said company shall erect and complete, within three years after they shall have accepted this ordinance, and shall forever thereafter maintain a continuous wall or structure of stone masonry, pier work or other sufficient material, of regular and slightly appearance, and not to exceed in height the general level of Michigan avenue opposite thereto, from the north side of Randolph street to the southern boundary of Lake park before mentioned, at a distance of not more than three hundred feet east from and parallel with the western or inner line, pointed out for said company, as specified in section 2 hereof, and shall continue said works to the southern boundary of the city, at such distance outside of the track of said road as may be expedient, which structure and works shall be of sufficient strength and magnitude, to protect the entire front of said city between the north line of Randolph street and its southern boundary, from further damage or injury from the action of the waters of Lake Michigan, and that part of the structure south of Lake park shall be commenced and prosecuted with all reasonable dispatch after the acceptance of this ordinance.

Sec. 8. The said company shall not in any manner, nor for any purpose whatever, occupy, use or intrude upon the open ground known as Lake park, belonging to the city of Chicago, lying between Michigan avenue and the western or inner line before mentioned, except, as far as the common council may consent, for the convenience of said company, while constructing or repairing their works in front of said ground.

Sec. 9. The said company shall erect no buildings between

the north line of Randolph street and the south line of the said Lake park, nor occupy nor use the works proposed to be constructed between these points, except for the passage of, or for making up or distributing their trains; nor place upon any part of their works between said points, any obstruction to the view of the lake from the shore, nor suffer their locomotives, cars or other articles to remain upon their tracks; but only erect such other works as are proper for the construction of their necessary tracks and protection of the same.

Ordinance concerning I. C. R. R. Co.

Sec. 10. The said company, in constructing the said line of works in front of Lake park and the public grounds, shall make, and keep open, through the same, such culverts or ways, as the common council shall prescribe, from the open lake to the space inside of the western line before mentioned, as will afford room for the uninterrupted flow of the water through the same.

Sec. 11. The said company shall lay down, construct, operate and maintain a track with suitable turnouts, switches and turn-tables, through 12th street, or through such other street, north of North street as the common council may designate, from their main track on the lake shore, to connect with the said tracks to be constructed by the Chicago and Rock Island Railroad Company, or procure the same to be done, as provided by an ordinance of the city of Chicago, passed April 2, 1852, so soon as the said track on the east side of the south branch of the river shall be completed: Provided, that the city of Chicago shall furnish the right of way to the said company, free of cost, before requiring said track to be constructed.

Sec. 12. Upon the acceptance of this ordinance by the said company (which shall be within ninety days of the passing of the same) a contract or agreement, embodying the provisions herein contained, and stipulating that the permission, rights and privileges hereby conferred upon said company shall depend upon the performance on their part of the requirements made upon them by this ordinance, shall be executed, sealed and delivered on the part of the city of Chicago, by the mayor thereof, and on the part of the Illinois Central Railroad Company, by the president thereof, both in usual legal form.

Passed June 14, 1852.

(Endorsed:) Filed May 3, 1886. Wm. H. Bradley, clerk.

Order—Leave to
file replication
to answer, filed
May 8, 1886.

Afterward, to wit, on the eighth day of May, in the adjourned May term of said court, 1886, in the record of the proceedings thereof in said entitled cases, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

People of the State of Illinois by the Relation of the Attorney General of said State	} In Chancery.
vs.	
Illinois Central Railroad Company et al.	

Now come the parties, by their solicitors, and, on motion, leave is given the complainant to file a replication to the answer of the defendant Illinois Central Railroad Company to the amended information herein, and it is ordered that the order of reference heretofore entered herein be set aside.

On motion, it is further ordered that The City of Chicago have an extension of thirty days' time in which to answer said amended information, without prejudice to the right of complainant, to have case referred to master to take proof before such answer is filed.

Replication to answer, filed May 8, 1886.

On the same day, to wit, on the eighth day of May, 1886, came the complainant, by its solicitor, and filed in said clerk's office its replication to the answer of The Illinois Central Railroad Company in said entitled cause; which said replication is in the words and figures following, to wit:

REPLICATION.

In the Circuit Court of the United States, Northern District of Illinois, May Term, A. D. 1886.

The People of the State of Illinois	} In Chancery.
vs.	
The Illinois Central Railroad Company et al.	

The replication of The People of the State of Illinois by George Hunt, attorney general, complainants, to the answer of the said defendants to the amended information filed in this cause.

These repliants, saving and reserving to themselves now

Replication. — Order.

127

and at all times hereafter all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of the said answer of the said defendants, for replication thereunto say that they will aver, maintain, and prove their amended information to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendants is uncertain, untrue, and insufficient to be replied unto by these repliants; without this, that any other matter or thing in the said answer contained material or effectual in the law to be replied unto and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things these repliants are ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said amended information they have already prayed.

GEORGE HUNT,

Attorney General.

(Endorsed:) Filed May 8, 1886. Wm. H. Bradley, clerk.

Replication to answer, filed May 8, 1886.

Afterward, to wit, on the twenty-ninth day of May, in the adjourned May term of said court, 1886, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Order of reference to Master, May 29, 1886.

ORDER.

People of the State of Illinois by the Relation of the Attorney General of said State
vs.

Illinois Central Railroad Company et al.

In Chancery.

On motion of defendant, by Mr. Jewett, and with consent of complainant, it is ordered that this cause be referred to E. B. Sherman, master in chancery, to take testimony and report the same to the court.

Order, June 21,
1887.

Afterwards, to wit, on the twenty-first day of June, in the adjourned May term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. 117 Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel.	}	In Chancery.
George Hunt, Attorney General,		
vs.		
The Illinois Central Railroad Company et al.		

The motion of the attorney general of the State of Illinois for leave to amend the amended information now on file in this cause having this day come on to be considered, and counsel for the respective parties having been heard, and the court being now fully advised in the premises, it is ordered by the court that the said amended information, subject to the further judgment of the court as to the propriety of the same to be determined upon the hearing of this cause, the court hereby reserving the right to make such order in respect to said proposed amendments upon the hearing as may then seem proper and as the justice of the case may require; and upon its motion, duly made and considered by the court, and after argument of counsel thereon, the respondent The City of Chicago is also, and subject to the same reserved right of the court, permitted to file the proposed amendments to its answers to said information, and also to file a cross-bill, as proposed in its motion for that purpose submitted, and the several parties defendant to said information and cross-bill of the city of Chicago are hereby required to answer said information as amended and the cross-bill of the city of Chicago, if they desire so to do, within ten days from the date of the entry of this order, and if no further answer shall be made to the amended information the answers of the respective parties to the amended information as it now stands shall be treated and considered as answers to the information and all amendments thereto heretofore made and the amendments hereby authorized to be filed in case the last-named amendments shall be sanctioned by the further order of the court to be made upon the hearing of this cause.

This order is made upon the express understanding that the same and the proposed amendments and cross-bill hereby authorized to be filed shall not in any wise have effect to hinder or delay the hearing of said cause on the day of July next, as the same has been set down.

Order June 21, 1887.

On the same day, to wit, on the twenty-first day of June, 1887, came the complainant, by its solicitor, and filed in said clerk's office its proposed amendments to amended information in said entitled cause; which said proposed amendments are in the words and figures following, to wit:

PROPOSED AMENDMENTS TO AMENDED INFORMATION.

the United States Circuit Court in and for the Northern District of Illinois.

Proposed amendments, filed June 21, 1887.

the People of the State of Illinois ex Rel.,	}	Information.
etc.,		
vs.		
the Illinois Central Railroad Company et al.		

And now comes the said complainant, by the Honorable George Hunt, attorney general of the State of Illinois, and is leave to amend the information now on file in the above-entitled cause, as follows:

On page 2, line 28, omit the words "outside the limits of city," and on same page, line 15, omit the words "which forms the eastern boundary of said sections of the city."

On page 3, line 11, insert "south" between the words "city" and "of."

On page 15, line 21, omit all after the words "above expressed" to and including the words "such act provided."

On page —, in the middle of the said page, next after the paragraph beginning with the words "that the breakwater for the protection from the waters of the lake" and ending

Proposed amend-
ments, filed June
21, 1887.

with the words "for the purpose of operating its said railroad within the limits of said city," insert: "And this honorable court is further informed that in the year A. D. 1852, the year when said railroad company built such breakwater and railroad tracks, that part of said fractional section fifteen (15) so occupied by it was to a considerable extent, but not all of it, under the waters of the lake, but the land so occupied by said company was dry ground and part of said fractional section fifteen (15) when it was granted to the State of Illinois, and so much of it as was covered by water when, as aforesaid stated, said railroad company built its breakwater and tracks, had become submerged by and by reason of certain artificial causes, and was at all times subject to and easy of reclamation, as was afterwards shown."

"And it is denied that it was then submerged land in the sense of any act of the legislature of the State of Illinois incorporating the said Illinois Central Railroad Company or subject to the terms of any act of said legislature as submerged land, or for any other reason; but, on the contrary, it was canal land, so styled, part and parcel of the land so as aforesaid granted by the United States to the State of Illinois and subject to the trusts created by the terms of the grant under which the State of Illinois acquired title thereto and to the trust created by said acts of the legislature of the State of Illinois, approved, respectively, February 21, 1843, and March 1, 1845, and easy of reclamation, and could not be used or applied to any other end or purpose than for canal purposes, for which it was and is greatly needed."

"And it is insisted that said acts and ordinances combined did not authorize or empower the said railroad company to enter upon or use said land and do not give them any rights thereto, but that their entry and their use of the same was and is wholly without warrant of law or right, and that said ordinance did not purport to authorize said company to enter upon canal land or upon any part of said section fifteen, but only in the lake in front of the same."

At the top of page 21, after the words "And this honorable court is further informed," strike out the words "the Illinois Central Railroad Company procured to be passed by legislature of the State of Illinois an act which took effect by

the passage thereof, over the veto of the governor of the State, on the 16th day of April, 1869, in and by which," and insert the words following: "that it is alleged and claimed by said Illinois Central Railroad Company that the legislature of the State of Illinois passed an act, which took effect on the 16th day of April, 1869, entitled as follows: "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago, and that in and by said act."

Proposed amendments filed Jan 21, 1887.

On page 21, line 13, erase the words "and it was further provided in said act that the right" and insert "and it is further alleged and claimed by said company that in and by said alleged act the right."

On page 21, line 19, erase the words "should be confirmed" and insert "was confirmed, and that in and by said act."

On same page, in line 25, strike out "should be" and insert "was."

On same page, in line 29, before the word "act," insert "pretended."

On same page (21), line 31, strike out the words "the said act further provided that" and insert "and it is further alleged by said company and by it claimed that in and by said pretended act."

At the beginning of line 4 on 22d page erase "should be" and insert "was."

On page 22, commencing with the words "all of which will more fully and at large," in tenth line from top, erase to and including the words "and your informant charges that the repeal of said act," in nineteenth line from top, and insert in lieu thereof:

"And this honorable court is further informed that the allegations and claims thus made by said company are severally and each of them without foundation in fact, and that

Amend-
filed June

no such law was ever passed by the legislature of the State of Illinois and no such act ever became the law of said State."

"And this honorable court is further informed that if any such law or any law with the title and embodying the terms, provisions, conditions, and restrictions claimed by the said company as herein stated was ever passed by the legislature of this State it was inoperative, invalid, and void for the purposes and to the ends claimed as herein stated by said company, both because the said company could not accept, take, or hold the grants of any of them in said alleged act specified and therein and thereby attempted to be made, and particularly could not take or hold the said submerged land constituting the bed of Lake Michigan claimed by said company."

"And because the said legislature had no power to and could not grant the same or make the grants or any of them claimed by said company to be made in and by said pretended act and because the said alleged act, if it should be otherwise held to be good and valid and within the power of the legislature to pass, was invalid and void for many reasons, and especially in this: That it was a private and local law and embraced more than one subject and embraced several subjects not expressed in the title."

"And this honorable court is further informed that the said Illinois Central Railroad Company at the time, to wit, on the 16th day of April, 1869, had no riparian rights whatever to the land submerged or otherwise lying east of a line running parallel with and four hundred feet east of the west line of Michigan avenue in said fractional sections ten and fifteen."

"And this honorable court is further informed that appurtenant to and belonging to said section ten (10) and said section fifteen (15) and said section twenty-two (22) and to the ownership thereof along the lake shore in contact with the water were and are and at all times have been certain right and privileges and modes of enjoyment wholly distinct from the public right of navigation, which were and are and always have been property rights and property."

"That the said pretended act of April 16, 1869, if the same was otherwise legal and effective, would take away from and

deprive the owners of land along the lake shore in said sections, and, among others, the said trustees of the Illinois and Michigan canal, on that day, and would take away and deprive the canal property of such property rights without compensation and without a day in court, and for such reason would be unconstitutional and void under the constitution of the State of Illinois."

Proposed amendments, filed Jan. 21, 1887.

"And this honorable court is further informed that no action was had or taken by said companies on or under said alleged grants or on or under said pretended act, and that the legislature of the State of Illinois, on the 15th of April, 1873, passed an act entitled 'An act to repeal an act entitled An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' which was on the last-mentioned day approved by the governor, and that said last-named act was passed before possession had been taken of the land or any of it so pretended to be granted in and by said pretended act of April 16, 1869, and before any act had been done upon said land by said companies under the said pretended act of April, 1869. And your informant charges that the said act of April 15, 1873."

On page 22, in line 22, erase the words "all title" and insert "any title, if any."

On page 22 and wherever the words "act of 1869," on that or any other page, or the word "act," relating to said pretended act of 1869, occur or occurs, insert immediately before them or it the word "pretended."

On same page, at end of line 26 and beginning of line 27, strike out the words "and said act was also" and insert the words "and said pretended act, if otherwise legal, was."

On page 23, in 3d line from top, erase "by the repeal of the act of 1873" and insert in lieu thereof "by said act of April 15th, 1873."

On page 25, in the last paragraph, after the words "the Illinois Central Railroad Company claims that the" and before the words "law of 1869," insert "alleged."

Proposed amend-
ments, filed June
21, 1887.

On page 28, line 21, after the words "of the State" insert the words "south of as well as north of said lot 21."

For greater convenience and that the proposed amendments may be more clearly understood, I file herewith a copy of the information now on file with the amendments introduced therein, showing the effect and character of the amendments sought to be made, when, and if they are made.

GEORGE HUNT,

Per E. B. McCAGG.

To Hon. John N. Jewett, sol'r for Ill. C. R. R. Co.

Service of a notice of which the foregoing is a copy is admitted to have been this day made on me.

Chicago, June 2, 1887.

JNO. N. JEWETT,

Sol'r for Ill. C. R. R. Co.

(Endorsed:) Filed June 21, 1887. Wm. H. Bradley, clerk

Amended infor-
mation, filed
June 21, 1887.

On the same day, to wit, on the twenty-first day of June, 1887, came The People of the State of Illinois, by its solicitor, and filed in said clerk's office its amended information in said entitled cause; which said amended information is in the words and figures following, to wit:

AMENDED INFORMATION.

State of Illinois, Northern District of Illinois, ss:

In the Circuit Court of the United States in and for the Northern District of Illinois.

To the honorable the judges of said court:

George Hunt, the attorney general of the State of Illinois, who brings suit for and in the name and by the authority of the people of the State of Illinois, comes now here and in behalf of the people of said State gives this honorable court to understand and be informed that the United States of America, having acquired the tract of country or territory northwest of the Ohio river by cession from

the State of Virginia, on condition, however, that there should be formed out of said territory not less than three nor more than five States, and that as soon as any of such States should have sixty-five thousand (65,000) free inhabitants therein they should be admitted into the Union of States on an equal footing with the original States in all respects whatever, did, in the year 1818, carve out of said territory and admit into the Union the State of Illinois, the boundaries whereof were defined by Congress and accepted and ratified by the State in its original constitution, as follows:

Amended information, filed
June 21, 1887.

Beginning at the mouth of the Wabash river, thence up the same and with the line of Indiana to the northwest corner of said State, thence east with the line of the same State to the middle of Lake Michigan, thence north along the middle of said lake to the north latitude forty-two degrees and thirty minutes, thence west to the middle of the Mississippi river, and thence down along the middle of that river to its confluence with the Ohio river, thence up the latter river along its northwestern shore to the beginning; and that by virtue of said act of cession, the conditions thereof, and the performance of those conditions as above recited, the State of Illinois acquired as well the jurisdiction over as the soil of the bed of Lake Michigan within the boundaries of the State, and the right, title, power, and authority in, to, and over the same absolutely and completely, subject only to the right of the United States to supervision over the navigable waters of said lake so far as may be necessary in exercising its rights to regulate commerce with foreign nations and among the several States; that, thus possessing the sovereign power over and proprietorship of the above-described portion of Lake Michigan and the bed thereof, the State of Illinois has the right to protect and defend the same from encroachment, and to sue for relief in respect of any encroachment or infringement of its sovereign or proprietary rights therein.

And this honorable court is further informed that the city of Chicago is situated upon the southwestern shore of Lake Michigan, within the boundaries above set forth, and now includes within its limits, with other territory, fractional sections three, ten, fifteen, twenty-two, twenty-seven, and thirty-four, in township thirty-nine north, range fourteen

Amended information, filed June 21, 1887.

east, of the third principal meridian, said fractional sections bordering upon the lake; that for a considerable time after the organization of the city the harbor was considered to be and was the Chicago river, a small, narrow stream opening into Lake Michigan near the center east and west line of said section ten, and such stream and the branches thereof did for a long time form the only harbor of the city, upon which all the shipping arriving from other parts of Lake Michigan and the other navigable waters of the United States were moored or anchored and along the shores of which were all the docks and wharves of the city; but in more recent 123 years the growth of the city in population, business, and commerce has required a larger and more convenient harbor, and the United States, in view of such expansion and growth and the probable continuance and increase thereof, has commenced the construction of a system of breakwaters and other harbor protections in the waters of the lake and in front of the fractional sections above enumerated. In the prosecution of this work by the United States there has been constructed a line of breakwaters or cribs of wood and stone from the point where the south shore of the Chicago river meets the shore line of the lake, thence running several thousand feet east and directly into the lake, thence turning such line due south and extending the same about one mile, and thence turning southwesterly and approaching the shore near the south line of said fractional section fifteen, with openings in said piers or lines of cribs for the entrance and departure of vessels, thus enclosing a large tract of the lake for the uses of shipping and commerce to be used and known as the harbor of Chicago; that such outer harbor so enclosed comprises a space about one mile and one-half in length from north to south and of a width from east to west varying from one thousand to four thousand feet; that as the commerce and shipping making use of the harbor of Chicago still further expands and increases in the future such harbor will be built further extended towards the south, and it is believed and expected that the necessities of commerce will soon require a large part of the entire lake front of the city south of the Chicago river, and in the near future the portion of the lake in front of fractional section twenty-two and for a convenient and reasonable distance from the shore will be in demand for such purposes, as the front of fractional sections ten and fifteen are now occupied and used therefor.

And this honorable court is further informed that the proper authorities of the United States have in a general way indicated a plan for the improvement and use of that portion of the harbor of Chicago which has been enclosed as aforesaid by which a considerable portion of the enclosure is devoted to a harbor of refuge, so called, or outer harbor, where ships may ride at anchor in security and within the protecting walls, and a considerable other portion of such enclosure nearer the shore of the lake is by such plan proposed to be devoted to wharfs and piers alongside of which ships may load and unload and upon which warehouses may be constructed and other structures erected for the convenience of the operations of lake commerce; that the works already constructed and in contemplation by the United States have in view simply the necessary structures and appliances for the protection of shipping by the erection of outer walls or piers of stone or wood, leaving the further development and improvement of the harbor to be carried on in accordance with the general designs furnished by the officers of the United States, but by the proprietors of the soil of the harbor and those having the right to enter upon the harbor for the purpose of making such erections and improvements, the intention of the United States being to confine its operations to

the protection and fostering of commerce and navigation in the discharge of its duty of regulating, leaving,

as it is bound to do, the furnishing of harbor facilities to those having the right and power to provide them; and your informant believes, and therefore states, that by the joint efforts and labors of the United States and the owners above outlined there is to be provided in the lake in front of said city an artificial harbor of a size and capacity sufficient to accommodate the lake commerce of the largest city upon the lakes and the largest in the number of ships entering and departing, as well as in the tonnage thereof, in the United States.

And this honorable court is further informed that by an act of the legislature of the State of Illinois approved on the fourteenth day of February, A. D. 1823, entitled "An act to provide for the improvement of the internal navigation of this State," certain commissioners therein named were appointed a board of commissioners to consider, devise, and adopt such measures as should or might be requisite to effect the communication by canal and locks between the navigable

Amended information, filed
June 21, 1887.

Amended information. filed
June 21, 1887.

waters of the Illinois river and Lake Michigan, with directions in said act to cause all necessary surveys and levels to be taken, and to recommend plans for the construction and formation of the said canal, and to calculate and estimate the sums of money which might or would be necessary for completing the said canal according to the plans adopted or recommended by them, and to make a plain report of their proceedings under said act to the General Assembly of this State at the commencement of an extra session of the said General Assembly, should the governor convene the same, all of which, with other things pertaining thereto, will more fully appear by said act, which, with all other acts of the legislature of this State which they shall have to refer to, your informant asks may be, so far as the same shall become important, a part of this information.

And that the Congress of the United States, by an act approved March 2, 1827, entitled "An act to grant a quantity of land to the State of Illinois for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan," granted to the State of Illinois, for the purpose of aiding the State in opening a canal to unite the waters of the Illinois with those of Lake Michigan, a quantity of land equal to one-half of five sections in width on each side of said canal (reserving each alternate section to the United States), to be selected by the Commissioner of the Land Office, under the direction of the President of the United States, from one end of the said canal to another, which said act provides, among other things, that the said lands be subject to the disposal of the legislature of the said State for the purpose aforesaid and no other—i. e., for the purpose of aiding the said State in opening a canal to unite the waters of the Illinois river with those of Lake Michigan.

And that so soon as the route of said canal should be located and agreed on by the said State it should be the duty of the governor thereof or such other person or persons as might have been or should be thereafter authorized to superintend the construction of said canal to examine and ascertain the particular sections to which the said State would be entitled under the provisions of said act and report the same to the Secretary of the Treasury of the United States, and that the State, under the authority of the legis-

lature thereof, after the selection should have been so made, should have power to sell and convey the whole or part of said land and to give a title in fee simple therefor to whomsoever should purchase the whole or any part thereof.

Amended information, filed
June 21, 1887.

At this honorable court is further informed that all the right, power, and authority of the State of Illinois over, about, and respecting the lands selected, as hereinafter stated, under and in pursuance of said act is contained in it, and that it has always held title to said land subject to said trust, as the defendants and each of them hereafter named have at all times well known.

And that after the passage of said of Congress the legislature of the State of Illinois, by an act entitled "An act to provide for constructing the Illinois and Michigan canal" (approved January 22, 1829), did enact and provide that the governor should biennially nominate and, by and with the consent of the senate, appoint three commissioners, whose duty it should be to select or cause to be selected as soon as practicable, in conjunction with such commissioner as should be appointed by the Commissioner of the General Land Office, under the direction of the President of the United States, the alternate sections of land granted to the state by the provisions of the act of Congress hereinabove referred to, and as soon as the same should have been selected and a duplicate list of the numbers of each section by them selected forwarded to the governor the said commissioners should, as and in the manner provided in and by said act, proceed to sell the said land.

And that said act further provided that said commissioners should have power to lay off such portions of said lands as they might think proper into town lots and to sell the same.

And that by the same act said commissioners were made a body corporate and authorized to sue and be sued and defend in the name of "the board of commissioners of the Illinois and Michigan canal."

And this honorable court is further informed that by an act of the legislature of the said State approved February 15, 1831, entitled "An act to amend an act to provide for the construction of the Illinois and Michigan canal," it was enacted that the board of commissioners authorized by the act,

Amended information, filed June 21, 1887.

which the act now in question was an act to amend, should constitute a board, to be known under the style and description of "the board of canal commissioners of the Illinois and Michigan canal," with all the ordinary and usual powers of a corporation and with other defined duties and powers to be found in said act, but which this informant does not think it necessary here to detail at length or state, but refers to so far as the same may be necessary.

And this honorable court is further informed that pursuant to said "acts" of Congress and of the legislature of the State of Illinois and in conformity therewith (among and with other lands in this proceeding not important to be 126 mentioned or described) fractional section fifteen (15), in township thirty-nine (39) north, of range fourteen (14) east, of the third principal meridian, was selected as one of the tracts to be granted to the State of Illinois for the purposes named in said act of Congress approved March 2, A. D. 1827, and said selection was approved by the then President of the United States in the words following:

"Whereas by the act of Congress approved on the second day of March, one thousand eight hundred and twenty-seven, entitled 'An act to grant a quantity of land to the State of Illinois, for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan,' it is provided that there should be 'granted to the State of Illinois for the purpose of aiding the said State in opening a canal to unite the waters of the Illinois river with those of Lake Michigan, a quantity of land equal to the one-half of five sections in width on each side of said canal, and reserving each alternate section to the United States, to be selected by the Commissioner of the Land Office under the direction of the President of the United States, from one end of the said canal to the other; and the said lands shall be subject to the disposal of the legislature of the said State for the purpose aforesaid, and no other.' Be it known that the following-described tracts or sections of land north of the base line, and east of the third principal meridian line, are hereby designated as being a portion of those tracts intended to be granted by the United States unto the State of Illinois by the said act of Congress, upon the conditions and for the purposes therein mentioned, and no other."

And this honorable court is further informed that there had been very little, if any, change in the shore line of said section fifteen or in the width of the same between the date of said survey and the selection and approval of such selection by the then President of the United States (which last was on the twenty-first day of May, A. D. 1830) of the said fractional section fifteen (15) as part of the land granted under the said act of Congress approved March 2d, A. D. 1827.

Amended information, filed
June 21, 1887.

And this honorable court is further informed that the State of Illinois accepted said grant upon the terms in and by said act of Congress provided and entered upon the construction of said canal, and that from the time of such selection and approval thereof down to the time of filing this amended information said trust has been and now is represented by commissioners or trustees named and appointed for that purpose, who have had the charge, management, and control of said lands and the proceeds of the same and of said canal and all its revenues, property and effects.

And that by an act of the legislature of the State of Illinois entitled "An act for the construction of the Illinois and Michigan canal," approved January 9, A. D. 1836, the governor of the State was authorized and empowered to negotiate a loan on the credit and faith of the State, as in said act provided, for the purpose of aiding in the construction of the Illinois and Michigan canal, not exceeding five hundred thousand dollars; that in and by the said act a new board was created, styled "the board of commissioners of the Illinois and Michigan canal," which was constituted a body corporate and politic, with full power and authority in their corporate name to contract and be contracted with, sue and be sued, defend and be defended, plead and be impleaded in all matters and things relating to them as canal commissioners, and to have and use a common seal, and to cause the canal lands in or near Chicago suitable therefor to be laid off into town lots and to sell said lots, and that said act contained other and further provisions respecting said canal, to which reference is made without here repeating the same; that under the terms and provisions of said act the then governor of the State of Illinois did negotiate the loan therein provided for, and that on or about the 13th day of June, A. D. 1836, the then commissioners of the said Illinois and Michigan canal, in conformity to the provisions of said act ap-

Amended information, filed
June 21, 1887.

proved January 9, A. D. 1836, and in strict accordance with the trust under which the same was held, caused part of said fractional section fifteen (15) along the west side thereof to be subdivided into lots and blocks and made and recorded a plat of such subdivision, which is now in the possession of the "canal commissioners" of the State of Illinois, ready to be produced and proved as this court shall direct, and for the same purpose and to the same end thereafter sold the lots in said subdivision, but that said subdivision was confined to the west part of said tract and did not extend east of Michigan avenue as the same is now occupied and used except a narrow strip on the south end thereof, and all of said tract between said Michigan avenue and the waters of the lake except said narrow strip on the south end thereof, known and described on and by said plat as lots 1 to 6, both inclusive, in block twenty-three (23), was neither then nor has the same since been granted, sold, or conveyed by any legal or competent authority so as to free it from said trust, but the same remains and ever since said grant has remained and now is subject to the terms and conditions of said grant to the State of Illinois and the trust thereby created.

And this honorable court is further informed that at the time said survey and plat was made, to wit, on or about the 13th day of June, A. D. 1836, because of certain artificial causes and constructions created and made by parties other than the said State of Illinois or the board of commissioners of said canal and without their consent, some abrasion or washing away of the lake front of said fractional section fifteen had occurred, but they are advised and believe that the east line of said tract was then about 1,200 feet east of its west line, and that there was a tract of land, the property of said State of Illinois, subject to said trust and the terms of said grant, unsubdivided and unsold, extending from Madison street on the north to 12th street on the south (except said lots 1 to 6, both inclusive, in block 23 of said subdivision), over 700 feet in width.

And that by an act of the legislature of the State of Illinois approved March 2, 1837, entitled "An act to amend an act entitled 'An act for the construction of the Illinois and Michigan canal,'" approved January 9, 1836, it was made the duty
128 of the commissioners of said canal to proceed immediately to the prosecution and final completion of said

canal upon the plan theretofore and in the year A. D. 1836 set out by the commissioners, and they were authorized to sell such part of the canal lands in the township in which Chicago is situated, with other property, as might be necessary to produce the sum of one million dollars, and the governor of the state was directed, when he should be advised of its necessity by said canal commissioners, to borrow upon the credit of the State the sum of five hundred thousand dollars, which sum should be expended on the said canal in the year 1838, in addition to the moneys arising from the sale of the canal lands and which might be then in the treasury of said board.

Amended information, filed
June 21, 1887.

And this honorable court is further informed that the prosecution of the work on said canal was continued, as by said act directed and required, and money was borrowed and debts and liabilities were incurred therefor and on that account, and that further and other legislation to the same end was had in the said State of Illinois, from time to time, providing for loans to aid in the construction of said canal and the reimbursement of the same and pledging of said canal lands as security therefor intermediate the act last referred to and the one next herein mentioned, which you informant begs leave to refer to, as and if it shall become necessary so to do, without setting the same out or further referring thereto, the same being part of the public laws of the said State.

And this honorable court is further informed that afterwards the legislature of the State of Illinois, by an act entitled "An act to provide for the completion of the Illinois and Michigan canal and for the payment of the canal debt," approved February 21, 1843, enacted and provided, among other things, as follows:

"Whereas it has been represented that certain holders of the bonds of this State are willing to advance the necessary funds for the completion of the Illinois and Michigan canal upon being secured the payment of their said advances and of their said bonds by a vested lien upon the said canal, lands, and revenues; for the purpose, therefore, of accomplishing an object so desirable and beneficial to the said bondholders and the state:

"Sec. I. Be it enacted by the people of the State of Illinois, represented in the General Assembly, that for the purpose of

Amended information, filed
June 21, 1887.

raising a fund for the completion of the Illinois and Michigan canal, the governor of this State be and hereby is fully authorized and empowered to negotiate a loan solely on the credit and pledge of the said canal, its tolls, revenues and lands, to be granted to trustees, as hereinafter provided, of one million six hundred thousand dollars, for a term not exceeding six years, and at a rate of interest not exceeding six per cent. per annum, payable out of the first moneys to be realized from the said canal, its lands, tolls and revenues, the payment of interest and reimbursement of principal to be at such place, within or without the United States, and payable in such currency as may be agreed on.

129 "Sec. II. The holders of canal bonds and other evidences of indebtedness of this State, issued for the purpose of aiding in the construction of the Illinois and Michigan canal, or hereafter to be issued for work done, percentage, sealage or damages, shall be first entitled to subscribe, in proportion to the amount of bonds or other indebtedness held by them, and take the whole of the said loan; but if, within a reasonable time, to be determined by the governor, any of the said holders of canal bonds or indebtedness shall neglect or refuse to subscribe as aforesaid, the whole of the said loan may be subscribed for and taken by other holders of canal bonds or indebtedness; but if, within a reasonable time, to be determined by the governor, the holders of the said canal bonds or other evidences of indebtedness aforesaid, shall not subscribe for and take the whole of the said loan, then, and in that case, any other person or persons, body politic or corporate, shall be entitled to subscribe for and take so much of the said loan as may remain unsubscribed for by the said holders of bonds or other evidences of debt aforesaid.

"Sec. III. After the said loan shall be subscribed for as aforesaid, there shall be appointed three discreet persons to constitute a board, to be known by the style and description of the 'board of trustees of the Illinois and Michigan canal;' one of the said trustees shall be appointed by the governor of this State, and the other two shall be elected or appointed by the subscribers to the said loan, or the holders of the certificates authorized by this act, in manner and form as hereinafter mentioned. * * *

"Sec. V. Subsequent elections shall be held every two years, at such a time and place, and under the direction of such persons, as a majority of the trustees, for the time being, shall, by resolution to be entered on their minutes, appoint, and they shall hold their offices for two years, and until others are elected in their stead. * * *

Amended Information, filed
June 21, 1887.

"Sec. X. For the purpose of placing in the hands of trustees full and ample security for the payment of said loan authorized by this act, and the interest thereon, as well as for securing a preference in the payment of such of the canal bonds and other evidences of indebtedness issued by this State for the purpose of aiding in the construction of the Illinois and Michigan canal, as may be owned by the subscribers to the said loan, the State does hereby irrevocably grant to the said board of trustees of the Illinois and Michigan canal, the bed of the said Illinois and Michigan canal, and the land over which the same passes, including its banks, margins, tow-paths, feeders, basins, right of way, locks, dams, water power, structures, stone excavated and stone materials quarried, purchased, procured or collected for its construction; and all the property, right, title and interest of the State, of, in and to the said canal, with all the hereditaments and appurtenances thereunto belonging, or in anywise appertaining; and also all the remaining lands and lots belonging to the said canal fund, or which hereafter may be given, granted or donated by the General Government to the State, to aid in the construction of the said canal, and the buildings and 130 erections belonging to the State thereon situated; the said board of trustees to have, hold, possess, and enjoy the same as fully and as absolutely, in all respects, as the State now can or hereafter could do, for the uses, purposes and trusts hereinafter mentioned. * * *

"Sec. XIII. The said board of trustees, when appointed, are hereby authorized to take possession of the said canal, lands, property and assets, granted to them by this act, and proceed to complete the same. They are hereby authorized to make such changes and alterations of the original plan of said canal as they may deem advisable, without reducing its present capacity or materially changing its present location, having due regard to economy, permanency of the work, and an adequate supply of water at all seasons. None of the

Amended information, filed
June 21, 1887.

lots, land or water powers so granted to the said trustees shall be sold until three months after the completion of said canal; the said lots, lands and water powers shall then be offered for sale by the said trustees at public auction, in lots and legal subdivisions, once or oftener in each year for the four succeeding years; said sales to be made for cash or on credit, in the manner prescribed in the act of the ninth of January, eighteen hundred and thirty-six. The said lands, lots, and water power before they are offered for sale as aforesaid, shall be appraised by three disinterested persons, to be appointed by the judge of the circuit court in which said lands, lots and water power are situated, who shall take an oath faithfully and impartially discharge the duty of appraisers. Said lands, lots and water power, when so appraised, shall not be sold for less than the appraisement. After the expiration of the four years the said trustees shall expose the residue of said land which remain on hand to sale, at such times and in such manner as they may deem proper. The said board of trustees are authorized to convey lands and water powers sold by them as aforesaid, after the purchase-money for the same be fully paid, but not before; and the said lands and lots shall be exempt from taxation of every description by and under the authority of any law of this State, until after the same shall have been sold and conveyed by the said trustees as aforesaid. * * *

"Sec. XVIII. This act shall go into effect, and the said canal property and assets shall vest in the said trustees, as hereinbefore granted, whenever and as soon as the full amount of said loan shall be subscribed for, and the trustees elected as hereinbefore provided; and when this act goes into effect, so much of the acts heretofore passed by the legislature of this State in relation to the Illinois and Michigan canal, and the canal lands and property, as conflicts with the provisions of this act, are hereby repealed."

And this honorable court is further informed that afterward the legislature of the State of Illinois, by an act approved March 1, 1845, entitled "An act supplemental to 'An act to provide for the completion of the Illinois and Michigan canal and for the payment of the canal debt.'" approved February twenty-first, one thousand eight hundred and forty-three, further enacted that after the completion of the con-

tract for the loan of \$1,600,000, as contemplated in said act, approved February 21, 1843, should be duly executed in all respects as provided by the terms of said act, as modified by the provisions of the act now referred to, and the trustees were appointed as contemplated in said act, the governor of the State should execute and deliver, under the seal of the State, a deed of trust to the said trustees of all the property and effects mentioned in the tenth section of said act, approved February the 21st, which said conveyance should include the lands and lots remaining unsold, donated by the United States to the State of Illinois, to aid in the completion of the said canal, to be held in trust as in the said act stipulated.

Amended information, filed
June 21, 1887.

And this honorable court is further informed that the loan of one million six hundred thousand dollars provided for in and by said acts was subscribed for in strict pursuance of the provisions thereof, and the subscribers became entitled to the privileges conferred upon them by the same and elected William H. Swift and Jacob Leavitt as trustees of the Illinois and Michigan canal, and Jacob Fry was nominated trustee of said board by the governor of the State; and thereupon the said governor, Thomas Ford, by deed, made, executed, and acknowledged in conformity to existing laws relating thereto and reciting said acts approved February 21, 1843, and March 1, 1845, granted and conveyed to said trustees all the said canal lands then remaining unsold, and that part of the land so granted and conveyed was that part of said fractional section fifteen which lies east of Michigan avenue, except said lots 1 to 6, both inclusive, in block twenty-three (23), in the subdivision, as hereinbefore stated, made by said commissioners of part of said fractional section, whereby and by means whereof they became seized in fee as trustees of all of the same and entered upon and took possession of the same and so continued seized and possessed until the nineteenth day of August, A. D. 1871, when they reconveyed the same to the said State of Illinois; that during the intermediate period they proceeded with the construction of said canal and incurred large obligations in such construction, and that said trust was not ended or determined nor the indebtedness of the said canal paid till the time of said reconveyance as aforesaid; from all which it appears that at the time of the passage of the act of the legislature of the State of Illinois granting the charter of the Illinois Central Rail-

Amended information, filed June 21, 1887.

road Company in 1851, and of the pretended passage of the act of 1869, hereinafter mentioned, the title to said fractional section fifteen was in no part in said State.

And it is insisted and claimed that during all said period it was not in the power of the legislature of the State of Illinois to grant said land or any part of the same, whether submerged or not, to any other person or corporation whatever, and that any attempted grant of the same by said State for any purpose whatever outside of the provisions of said trust was without force or legal effect and gave no right or claim whatever to any beneficiary named in any such attempted grant.

And this honorable court is further informed that said canal is now and ever since its completion has been in active and during the season of navigation in constant use, 132 needing daily supervision and care and requiring the employment of a large number of subordinates and of large sums of money to keep it in repair; that it is liable at all times to accident and injury so extensive as not only to stop its use for a greater or shorter time, but also requiring large sums to again put it in order.

And this honorable court is further informed that it became necessary for the legislature of the State of Illinois, at its session commencing January 8, 1879, because of such danger and liability and that means might be provided to keep the said canal in navigable condition until after the adjournment of the (then) next General Assembly, to appropriate from the State treasury for the first year the sum of thirty thousand dollars for that purpose, as by an act of said legislature entitled "An act making appropriation for the necessary repairs and running expenses of the Illinois and Michigan canal until the expiration of the first fiscal quarter after the adjournment of the next General Assembly," approved May 21, 1879, will more fully and at large appear.

And that for the same reason, to the same end, and for the same purpose as is stated in said act, by an act bearing the same title, approved May 27, 1881, there was appropriated from the State treasury for the first year the further sum of thirty thousand dollars and for the second year the like sum,

and that for the same reason, to the same end, and for the same purpose as is stated in said act, by an act bearing the same title and approved June 25, 1883, there was appropriated from the State treasury for the first year the sum of twenty thousand dollars and for the second year the like sum, and that appropriations will hereafter be necessary at each session of the legislature of the State of Illinois to the end in and by said acts intended, and that the said canal is now in bad condition and needs extensive and costly repairs and the expenditure of a large sum of money to such end.

Amended information, filed
June 21, 1887.

And that there is great and immediate necessity that the said canal be enlarged and its capacity increased, and that the best interest of the canal and of the people of Illinois would be much and immediately promoted by enlarging the same, and that so apparent and pressing is the necessity therefor that by an act entitled "An act ceding the Illinois and Michigan canal to the United States," approved April 28, 1882, the legislature of the State of Illinois offered and tendered to the United States the said canal, its right of way, and all its appurtenances and all right, title, and interest which the State had in any real estate ceded to the State by the United States for canal purposes, if the United States would make and maintain an enlarged waterway and canal from Lake Michigan to the Illinois and Mississippi rivers.

And this honorable court is further informed that the United States, by act of Congress approved September 20, 1850, granted to the State of Illinois, for the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with a branch of the same to Chicago, on Lake Michigan, and another via the town of Galena, in said State, to Dubuque, in the State of Iowa, a right of way through the public lands, with the right to take necessary materials of earth, stones, timber, etc., for the construction of said road, provided that such right of way should not exceed one hundred feet on each side of the length thereof, and in addition to such right of way there was also in and by the same act granted to the State of Illinois for the purpose aforesaid every alternate section of land, designated by even numbers, for six sections in width on each side of said road and branches, with other conditions,

Amended information, filed June 21, 1887.

limitations, and provisions as to the construction of the road as the same are in such act set forth.

That for the purpose of executing the trust confided to the State of Illinois by the act of Congress above mentioned the Illinois Central Railroad Company was incorporated by the legislature of Illinois by an act approved on the 10th day of February, 1851, and the right of way, together with the land granted as aforesaid by the United States to the State of Illinois, was conferred upon the Illinois Central Railroad Company for the purposes of constructing a railroad on the routes above expressed, with the provision that nothing in said act contained should authorize said company to make a location of their track within any city without the consent of the common council of said city.

And this honorable court is further informed that by an act of the legislature of the State of Illinois approved June 22, 1852, said Illinois Central Railroad Company was empowered and authorized to locate, construct, and operate a lateral branch and track from its eastern branch as then located at or near 12th street, in the city of Chicago, to the south branch of the Chicago river, on such terms and conditions and in such manner as might be stipulated between the common council of the city of Chicago and said company; that, in pursuance of the powers and privileges granted said corporation in the acts above referred to and for the purposes of complying with the limitations expressed in the charter of said company and locating the track of said road within the corporate limits of the city of Chicago, said company procured from the common council of the city of Chicago, an ordinance, which was passed on the 14th day of June, 1852, providing that permission should be granted to said railroad company to lay down, construct, and maintain within the limits of the city of Chicago and along the margin of the lake adjacent to the same a railroad, with one or more tracks, and to have the right of way and all powers incident thereto and necessary therefor, upon certain terms and conditions therein expressed, among which conditions and provisions were the following, to wit: That the said road should enter the city at or near the intersection of its southern boundary with Lake Michigan and, following the shore on or near the margin of said lake northerly to the southern boundary of the open space known as Lake park, in front of

canal section 15, continue northerly across the open space in front of said section 15 to such grounds as said company might acquire between the northerly line of Randolph 134 street and the Chicago river, in Fort Dearborn addition to said city, upon which ground should be located the depot of such railroad company within said city and such other buildings, shops, and other apparatus as might be necessary and convenient for the business of the company, said city, in and by said ordinance, expressly disclaiming any undertaking to obtain for said railroad company any right of way or other right, privilege, or easement not in the power of said city to grant or confer and disclaiming all liability and responsibility for the acts of said company.

Amended Information, filed
June 21, 1887.

That in and by said ordinance the consent of the city was given to said railroad company to enter and use in perpetuity, for its line of road and other works necessary to protect the same from the lake, a width of 300 feet from the southern boundary of said public ground near 12th street to the northern line of Randolph street, the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue and parallel thereto, the said company agreeing, in consideration of the benefits and advantages secured by said ordinance, to erect and complete within three years after the acceptance of said ordinance and to forever maintain a continuous wall or structure of stone masonry or brick-work or other sufficient material, of regular, slightly appearance, and not to exceed in height the general level of Michigan avenue from the northern side of Randolph street to the southern point of Lake park, before mentioned, at a distance of not more than three hundred feet east from and parallel with the western or inner line pointed out for said company as specified in said section 2 of said ordinance, and to continue said work to the southern boundary of the city at such distance outside of the track of said road as might be expedient, which structure and works should be of sufficient strength and magnitude to protect the entire front of the city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan.

That there were other and further provisions, restrictions, and limitations upon the mode of using the right of way so

Amended information, filed June 21, 1887.

authorized to be taken by the city as aforesaid, all of which more fully and at large appear by reference to the ordinance or a copy thereof, which is to be produced at the hearing of this cause and which your informant hereby makes a part of this information.

That such ordinance of the city of Chicago of June 14, 1852, was accepted by the said railroad company and a contract in solemn form was executed between the city of Chicago, of the one part, and the Illinois Central Railroad Company, of the other part, by which each bound itself to the other to fulfill the requirements, provisions, conditions, and limitations in said ordinance contained.

That afterwards and on the 10th day of September, 1865, a further ordinance was procured from the city of Chicago, by which the consent of said city was secured to the use by said railroad company of that piece of ground lying west of the line prescribed to said railroad company next to the north line of Randolph street and described as the piece of land between the north line of Randolph street and the west line of the railroad right of way and a third line extending from a point in the north line of Randolph street 300 feet east of the west line of Michigan avenue, thence by a straight line to a point in the east line of the railroad right of way 200 feet south of the north line of Randolph street, and that afterwards and on the 15th day of September, 1856, the further permission was secured from the city of Chicago, so far as said city had a right to grant the same, to the Illinois Cenetral Railroad Company entering upon and using for its line of railroad and other works the space between the then line of the breakwater 700 feet south of the north line of Randolph street extended, and running thence on a straight line to the southeast corner of its then breakwater and thence to the river, and that while the city of Chicago had no power or authority to cede or grant to said railroad company any right of way over any of the public lands or any portion of the bed of Lake Michigan, and having only the power of giving its permission to the entry within the limits of the city of the railroad company with its line of road and works appertaining therto, nevertheless said railroad company, assuming or pretending to assume that the grant obtained from the city of Chicago conferred on said railroad company the authority to use the public lands be-

longing to the State and in the bed of Lake Michigan outside and beyond the prescribed right of way of 200 feet in width, it, after the passage of the two ordinances last above mentioned, entered upon and has since used the two triangular pieces of land next to the north line of Randolph street, above described, and which are outside of and beyond the prescribed 200 feet within which the limits of the right of way are determined by the charter of said railroad company and the law of the State of Illinois.

Amended information, filed
June 21, 1887.

That the breakwater and the protection from the waters of the lake mentioned in said ordinance was constructed by said railroad company, substantially in accordance with the terms of the contract entered into with the railroad company and the city, from the north line of Randolph street south along the front of said city 200 feet east of the line prescribed as the west limit of said right of way and parallel thereto, which said tract of ground 200 feet wide and the triangular strip above described, together with other portions of the body of the lake, as will be hereafter mentioned, said railroad company has entered upon and is now using as its own property for the purpose of operating its said railroad within the limits of said city.

And this honorable court is further informed that in the year A. D. 1852, the year when said railroad company built such breakwater and railroad tracks, that part of said fractional section fifteen (15) so occupied by it was to a considerable extent, but not all of it, under the waters of the lake, but the land so occupied by said company was dry ground, and part of said fractional section fifteen (15) when it was granted to the State of Illinois and so much of it as was covered by water when as aforesaid stated said railroad company built its breakwater and tracks had become submerged 136 by and by reason of certain artificial causes and was at all times subject to and easy of reclamation, as was afterwards shown.

And it is denied that it was then submerged land in the sense of any act of the legislature of the State of Illinois incorporating the said The Illinois Central Railroad Company or subject to the terms of any act of said legislature as submerged land or for any other reason, but, on the contrary, it was canal land, so styled, part and parcel of the land so as

Amended information, filed June 21, 1887.

aforesaid granted by the United States to the State of Illinois, and subject to the trusts created by the terms of the grant under which the State of Illinois acquired title thereto and to the trust created by said acts of the legislature of the State of Illinois approved respectively February 21, 1843, and March 1, 1845, and easy of reclamation and could not be used or applied to any other end or purpose than for canal purposes, for which it was and is greatly needed.

And this honorable court is further informed that in the year 1852, the date of the ordinance of the city of Chicago above referred to and the date of the entry of the said Illinois Central Railroad Company within the limits of the city of Chicago and of the extension of said road to the Chicago river, the so-called open ground between Randolph street and 12th street was to a considerable extent under the waters of the lake; that Lake park, so called, had extended from Randolph street to Park row, near 12th street, and from Michigan avenue east to a line beyond the west line of the railroad right of way, but in the year 1852 the waters of the lake had advanced upon the shore until by the process of abrasion the water reached nearly to Michigan avenue; but since the year 1852 the city of Chicago has caused Lake park to be restored by filling in, until now Lake park is a solid body of land, extending from Michigan avenue to the railroad tracks and from Randolph street to Park row.

That in the year 1822 said township 39 north, range 14 east, of the third principal meridian was surveyed and marked out under the authority of the United States, pursuant to the laws thereof, and at that time, according to such survey, the south line of fractional section ten, which is the dividing line between sections ten and fifteen, in said township, met the shore of Lake Michigan 1,141 feet from the west line of said section; that fractional section 15, adjoining section ten on the south, was, according to the same survey, 1,141 feet wide on its northern line and 1,482 feet wide on its southern line, the shore of the lake making a nearly straight line between the north and south lines of said section.

That a map or sketch of the shore of Lake Michigan between the river and 22nd street is hereto attached, which shows with approximate accuracy as it was marked down in

the survey of 1822 and as it exists at the present time, and also various changes which have taken place in the shore line between those dates. Upon this map the line of the survey of 1822 is marked in blue. A sand bar, marked in red, extended at that time and up to 1836 from the river to a point several hundred feet south of the south line of section ten, which sand bar was not surveyed in 1822. The old channel of the river, which at that time turned south at the 137 northern limit of the sand bar and opened into the lake at the southern limit thereof, marked the eastern limit of the survey of 1822. The yellow line of said map in front of section 15 shows the shore line as marked down on the plat of the subdivision of that section by the canal commissioners in 1836, and such yellow line is properly the eastern boundary of Lake park, so called. In the year 1852, at the time of the survey of the Illinois Central Railroad into the city, the water had encroached upon the land so that in front of section 15 the shore line was at the red line on said map, and in front of section 10 the shore line in 1852 was not far from Michigan avenue, as shown on the plat of 1839 and represented on this map by the black line; and from these two last-mentioned lines to the outside breakwater shown on the map the water has been filled with earth and other materials and solid ground made, all of which has been done and all of such ground is occupied by the Illinois Central Railroad Company excepting Lake park between Michigan avenue and the said right of way, which was filled by and is now in the possession of the city of Chicago.

And this honorable court is further informed that it is alleged and claimed by said company that the legislature of the State of Illinois passed an act, which took effect on the 16th day of April, 1869, entitled as follows: "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," and that in and by said act all the right, title, and interest of the State of Illinois in and to so much of fractional section 15, township 39 north, range 14 east, of the third principal meridian, in said city of Chicago as was situated east of Michigan avenue and north of Park row and south of the south line of Monroe street and west of a line running parallel with and 400 feet east of the west line of Michigan avenue was granted to the city of Chicago, with power to sell the same and to

Amended information, filed
June 21, 1887.

Amended information, filed June 21, 1887.

use the proceeds of such sale as a park fund, to be distributed by the common council and devoted to park purposes in the city of Chicago.

And it is further alleged and claimed by said company that in and by said alleged act the right of said railroad company under the grant from the State in its charter and under and by virtue of the appropriation, occupancy, use, and control, and the riparian ownership incident to such grant, appropriation, occupancy, use, and control, in and to the lands, submerged or otherwise, lying east of the line running parallel with and 40 feet east of the west line of Michigan avenue in said fractional sections 10 and 15 was confirmed, and that in and by said act all the right and title in the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended easterly and in a line extended eastward from the south line of lot 21, and south of and near the round-house and machine

shops of said company, was granted in fee to the said Illinois Central Railroad Company, its successors and assigns: Provided, however, that the fee to said land should be held by said company in perpetuity, and that said company should not have the power to grant, sell, or convey the fee in the same; and provided also that nothing contained in said pretended act should authorize obstructions to the Chicago harbor or impair the public right of navigation; and it is further alleged by said company and by it claimed that in and by said pretended act the right and title of the State of Illinois in and to the lands, submerged or otherwise, lying north of the south line of Monroe street and south of the south line of Randolph street and between the east line of Michigan avenue and the track and the roadway of the Illinois Central Railroad Company, being parts of said sections 10 and 15, was granted in fee to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said companies might require. In consideration of said grant of the three blocks of land last mentioned to said three railroad companies the said companies were to pay to the city of Chicago the sum of \$800,000.

And this honorable court is further informed that the allegations and claims thus made by said company are severally and each of them without foundation in fact, and that no such law was ever passed by the legislature of the State of Illinois and no such act ever became the law of said State.

And this honorable court is further informed that if any such law or any law with the title and embodying the terms, provisions, conditions, and restrictions claimed as herein stated by the said company was ever passed by the legislature of this State, it was inoperative, invalid, and void for the purposes and to the ends claimed as herein stated by said company, both because the said company could not accept, take, or hold the grants or any of them in said alleged act specified and therein and thereby attempted to be made, and particularly could not take or hold the said submerged land constituting the bed of Lake Michigan claimed by said company.

And because the said legislature had no power to and could not grant the same or make the grants or any of them claimed by said company to be made in and by said pretended act, and because the said alleged act, if it should be otherwise held to be good and valid and within the power of the legislature to pass, was invalid and void for many reasons, and especially in this, that it was a private and local law and embraced more than one subject and embraced several subjects not expressed in the title.

And this honorable court is further informed that the said Illinois Central Railroad Company at the time, to wit, on the 16th day of April, 1869, had no riparian rights whatever to the land, submerged or otherwise, lying east of a line running parallel with and four hundred feet east of the west line of Michigan avenue in said fractional sections ten and fifteen.

And this honorable court is further informed that appurtenant to and belonging to said section ten (10) and said 139 section fifteen (15) and said section twenty-two (22)

and to the ownership thereof along the lake shore in contact with the water were and are and at all times have been certain rights and privileges and modes of enjoyment wholly distinct from the public right of navigation, which were and are and always have been property rights and property.

Amended information, filed
June 21, 1887.

Amended information, filed June 24, 1887.

That the said pretended act of April 16, 1869, if the same was otherwise legal and effective, would take away from and deprive the owners of land along the lake shore in said sections, and among others the said trustees of the Illinois and Michigan canal on that day, and would take away and deprive the canal property of such property rights without compensation and without a day in court, and for such reason would be unconstitutional and void under the constitution of the State of Illinois.

And this honorable court is further informed that no action was had or taken by said companies on or under said alleged grants or on or under said pretended act, and that the legislature of the State of Illinois, on the 15th of April, 1873, passed an act entitled "An act to repeal an act entitled An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan on the eastern frontage of the city of Chicago," which was on the last-mentioned day approved by the governor, and that said last-named act was passed before possession had been taken of the land or any of it so pretended to be granted in and by said pretended act of April 16, 1869, and before any act had been done upon said land by said companies under the said pretended act of April, 1869.

And your informant charges that the said act of April 15th, 1873, had the effect to withdraw and take from said Illinois Central Railroad Company and revest in the State of Illinois any title, if any, which passed from said State to said railroad company by the pretended act of 1869; that said pretended act of 1869, while purporting to grant a considerable portion of the body of Lake Michigan to the Illinois Central Railroad Company, was inoperative and ineffectual for that purpose for want of capacity in said railroad company to accept and receive the same, as by reference to its charter passed in 1851, as above recited, will fully appear; and said pretended act, if otherwise legal, was also inoperative by reason of the peculiarity in the terms of the grant, the legislature by said pretended act purporting to grant the fee to said railroad company and by the said pretended act expressly withholding from said railroad company the power to grant, sell, or convey the same; or if said pretended act is construed so as to pass the title to said land, whether submerged or otherwise, it was a title subject to be resumed by the State which gave

it, and there was no consideration for said grant, and your informant insists that the same was withdrawn and revested in the State of Illinois by said act of 1873; that the said pretended act of 1869 contained little, if anything, of legislation except the said alleged grants; that the object and intention of the legislature in passing said act of repeal was to undo what had been done by that pretended act of 1869, to withdraw what had been given by that pretended act, and to revest in the State whatever title had been divested thereby.

Amended information, filed
June 21, 1887.

And this honorable court is further informed that the said Illinois Central Railroad Company after its entrance into the city began a system of encroachment upon the domain of the State, the first indication of which was the procuring the passage of the ordinances purporting to grant in perpetuity the two triangular strips of ground near Randolph street, and which it immediately entered upon, pretending to assume the right of the city to grant the same, and is now using the same under the same pretense; that it soon after began filling with earth that portion of the bed of the lake in front of fractional section ten north of Randolph street under the claim that, having acquired the land on the shore of the lake, the so-called riparian rights enabled it to advance the shore and its own land into the lake at its pleasure or upon some other unfounded assertion of right, but that this encroachment upon the property belonging to the State was, after it had proceeded to a considerable extent, arrested by the action of the United States in suing out of the circuit court of the United States for the northern district of Illinois an injunction prohibiting the continuance of the encroachments upon the waters of the lake, which injunction remained in force until dissolved by the said railroad company entering into a stipulation having the substantial effect of the injunction; that the said railroad company not long ago entered upon the bed of the lake in front of its breakwater and commenced to fill the same with earth, with the view of using the same for railroad purposes, and this was done under the claim that the ordinance of the city above mentioned conferred upon it the right to use land three hundred feet in width, and that it was now only occupying two hundred feet in width, but this encroachment was also prevented by the action of the officers of the United States, whose request to the railroad company to desist was sufficient without the necessity of

Amended information. filed
June 21, 1887.

That the said pretended act of April 16, 1869, if the same was otherwise legal and effective, would take away from and deprive the owners of land along the lake shore in said sections, and among others the said trustees of the Illinois and Michigan canal on that day, and would take away and deprive the canal property of such property rights without compensation and without a day in court, and for such reason would be unconstitutional and void under the constitution of the State of Illinois.

And this honorable court is further informed that no action was had or taken by said companies on or under said alleged grants or on or under said pretended act, and that the legislature of the State of Illinois, on the 15th of April, 1873, passed an act entitled "An act to repeal an act entitled An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan on the eastern frontage of the city of Chicago," which was on the last-mentioned day approved by the governor, and that said last-named act was passed before possession had been taken of the land or any of it so pretended to be granted in and by said pretended act of April 16, 1869, and before any act had been done upon said land by said companies under the said pretended act of April, 1869.

And your informant charges that the said act of April 15th, 1873, had the effect to withdraw and take from said Illinois Central Railroad Company and revest in the State of Illinois any title, if any, which passed from said State to said railroad company by the pretended act of 1869; that said pretended act of 1869, while purporting to grant a considerable portion of the body of Lake Michigan to the Illinois Central Railroad Company, was inoperative and ineffectual for that purpose for want of capacity in said railroad company to accept and receive the same, as by reference to its charter passed in 1851, as above recited, will fully appear; and said pretended act, if otherwise legal, was also inoperative by reason of the peculiarity in the terms of the grant, the legislature by said pretended act purporting to grant the fee to said railroad company and by the said pretended act expressly withholding from said railroad company the power to grant, sell, or convey the same; or if said pretended act is construed so as to pass the title to said land, whether submerged or otherwise, it was a title subject to be resumed by the State which gave

it, and there was no consideration for said grant, and your informant insists that the same was withdrawn and revested in the State of Illinois by said act of 1873; that the said pretended act of 1869 contained little, if anything, of legislation except the said alleged grants; that the object and intention of the legislature in passing said act of repeal was to undo what had been done by that pretended act of 1869, to withdraw what had been given by that pretended act, and to revest in the State whatever title had been divested thereby.

Amended information, filed
June 21, 1887.

And this honorable court is further informed that the said Illinois Central Railroad Company after its entrance into the city began a system of encroachment upon the domain of the State, the first indication of which was the procuring the passage of the ordinances purporting to grant in perpetuity the two triangular strips of ground near Randolph street, and which it immediately entered upon, pretending to assume the right of the city to grant the same, and is now using the same under the same pretense; that it soon after began filling with earth that portion of the bed of the lake in front of fractional section ten north of Randolph street under the claim that, having acquired the land on the shore of the lake, the so-called riparian rights enabled it to advance the shore and its own land into the lake at its pleasure or upon some other unfounded assertion of right, but that this encroachment upon the property belonging to the State was, after it had proceeded to a considerable extent, arrested by the action of the United States in suing out of the circuit court of the United States for the northern district of Illinois an injunction prohibiting the continuance of the encroachments upon the waters of the lake, which injunction remained in force until dissolved by the said railroad company entering into a stipulation having the substantial effect of the injunction; that the said railroad company not long ago entered upon the bed of the lake in front of its breakwater and commenced to fill the same with earth, with the view of using the same for railroad purposes, and this was done under the claim that the ordinance of the city above mentioned conferred upon it the right to use land three hundred feet in width, and that it was now only occupying two hundred feet in width, but this encroachment was also prevented by the action of the officers of the United States, whose request to the railroad company to desist was sufficient without the necessity of

Amended information, filed
June 21, 1887.

suing out an injunction; that the said railroad company has begun and is now prosecuting the work of filling with earth and other materials that portion of the bed of Lake Michigan in front of fractional section 15, both north and south of lot 21, near its round-house, mentioned in said alleged act of the legislature of Illinois passed in 1869; that it is proceeding to sink lines of cribs of earth and stone in the lake in front of said section 15 and enclosing within such lines large areas of the lake, which it then fills in with earth and other material in order to appropriate the ground so made and to use the same for railroad and other purposes; that your informant is informed that it justifies or pretends to justify such proceedings under the pretended act of 1869, so far as they are carried on north of its round-house, and by some claim of riparian rights, so far as they are carried on south of its round-house; that it also asserts that by its charter of 1851 it was empowered to use all the land and domain of the State which it might ever after need and desire for railroad purposes, while the truth and fact is that it has long ago made the location of its road and, as your informant believes, has caused the same to be recorded in the proper offices as the law 141 requires, and its power to use the public domain has been long exhausted, and in addition thereto such enlargement and increase of its lands and facilities are not required for its own railroad purposes, but that other railroad companies have leased from the Illinois Central the use of its tracks, grounds, and structures, from which a large rental is derived, and without such facilities, so used and enjoyed by other railroad companies, its occupancy of the public ground could be very much curtailed instead of being enlarged; that the grant contained in its charter, upon which reliance is placed, was not made to enable it to lease the granted privileges to other railroad companies, but for its only and sole use; that some contract of lease or other arrangement has been made by it with the Michigan Central Railroad Company, the New York, Chicago and St. Louis Railroad Company, the Baltimore and Ohio Railroad Company, the exact terms of which arrangement are unknown to your informant, but they result in the use of track room and other facilities by means of which such roads enter the city of Chicago.

And this honorable court is further informed that the said

Illinois Central Railroad Company claims that the alleged law of 1869, above referred to, vested in it the absolute title to the submerged land therein mentioned, and that such title has not been divested by the repeal of said act or otherwise.

Amended information, filed
June 21, 1887.

It further claims that the charter of 1851 granted the use of all the public domain in the State in front of its tracks along the shore of Lake Michigan, in the city of Chicago, so far as the same is needed or desired for railroad purposes, not only for its own use, but also to lease to other railroad companies. It also claims that the grant of the right of way contained in the charter of 1851 and the location thereof by the railroad company operated to convey to the company the fee-simple title to such right of way; and such right of way being upon the shore of the lake, in the city of Chicago, such ownership so claimed carried with it the so-called riparian rights, under which it could fill the lake and extend the shore into the waters thereof to an indefinite extent. It also claims that it has purchased from the private owners certain portions of the shore of the lake, and that the ownership acquired in that way carries with it the so-called riparian right of making available the bed of the lake by filling the same with earth and other materials, thus making solid ground of the bed of a navigable lake of vast extent and appropriating the same under the name of the exercise of riparian rights; that the said railroad company threatens to enforce its said claims by the use and occupation of the bed of the lake in front of said sections ten and fifteen southward from the mouth of the Chicago river and for an indefinite distance into the lake, and, in pursuance of such claims and threats and of other claims, has entered upon and is occupying the triangular strips near Randolph street, as above set forth; it has entered upon and is occupying a considerable tract of land in front of said section ten, between the Chicago river and Randolph street, east of the land acquired by it for railroad purposes, and that at the time of its entry upon such triangular strips and the domain in front of section ten the same and all of it was covered by the waters of Lake Michigan, and your informant claims that it was and is the property of the State; that in pursuance of its claims and threats above set forth said company has entered upon the bed of the lake south of Randolph street extended east, and claims the right and threatens to exercise it of using the bed of the lake from Randolph street extended to the south line

Amended information, filed
June 21, 1887.

of said section fifteen, and is now engaged in filling portions of the lake within the lines last mentioned.

And this honorable court is further informed that notice has been given by your informant in behalf of the people of the State of Illinois to the Illinois Central Railroad Company of the rights of the State, and the company has been required by the same authority to desist from the encroachments above set forth, but the notice is disregarded and the title of the State is openly disputed by the company, and the railroad company openly and publicly gives out that it has the right to use the bed of the lake, as it now is beginning to use the same. Your informant states that these claims, pretenses, and public outgivings of the said railroad company are a great and irreparable injury to the State of Illinois as a proprietor and owner of the bed of the lake, throwing doubts and clouds upon its title thereto and preventing an advantageous sale or other disposition thereof; that the entry upon and the use and occupancy of the public domain, as above set forth, is a purpresture and a public nuisance and should be enjoined by this honorable court; that the title to this tract of soil is held by the State in trust for the people thereof, and as a trustee it is bound to protect the interests and rights of the beneficiaries, as well the said Illinois Central Railroad Company as all the public of Illinois, and your informant therefore calls upon this court to adjust and determine the title to the portion of the lake in question and to limit and determine the rights therein and thereto of the Illinois Central Railroad Company, if any it has.

Your informant states that the right to and ownership of the soil of the harbor of Chicago is of immense and incalculable value; that the ownership thereof and the right to control the same, even subject to the rights of the United States, should not belong to any single individual or association of persons or to any private corporation; the whole public is interested therein, and a private ownership thereof would constitute a very dangerous menace to the commercial interests of the whole body of the people, not only in this State, but throughout the northern portion of the United States.

Your informant states that the injury from the actions and doings of the Illinois Central Railroad Company is irremediable at law, and that the State is only relievable in equity,

and he makes parties defendant hereto The Illinois Central Railroad Company, The United States of America, and The City of Chicago, all of which have or claim some rights or interests in the subject hereof.

Amended information, filed
June 21, 1887.

To the end, therefore, that The Illinois Central Railroad Company, The United States of America, and The City
143 of Chicago may answer this information, their answer on oath being waived, and that the title of the State of Illinois to the bed of Lake Michigan may be established and confirmed; that the claims of the said railroad company thereto under the various grants and ordinances above referred to may be declared to be unfounded and without force, and that the clouds and doubts cast thereby upon the title of the State be removed; that the boundaries between the land of the United States and of the city of Chicago and of the State may be ascertained and the shore line and navigable water determined; that the said Illinois Central Railroad Company may be enjoined and restrained from filling any of the bed of the lake, from sinking cribs or constructing piers therein or in any manner encroaching upon the domain of the State, as the same is in this information asserted to exist, and that the rights of said railroad company under the various laws of the State may be ascertained and declared; that the structures and erections, all filling, piling, and crib-work and pier constructions made by the Illinois Central Railroad Company upon or in the said domain of the State may be directed to be removed and such domain restored to the condition in which it was before such encroachments were made, and that the State of Illinois may be declared to have the sole and exclusive right to develop the harbor of Chicago by the construction of docks, wharfs, etc., and to dispose of such rights at its pleasure for the interests of the public, and that such other and further or different relief may be granted as is agreeable to equity—

May it please the court to enter an order directing the said defendants, The Illinois Central Railroad Company and The City of Chicago, to plead, answer, or demur to said information as amended within some reasonable time to be fixed by this court.

And your informant will forever pray, etc.

GEORGE HUNT,

Attorney General Illinois.

(Endorsed:) Filed June 21, 1887. Wm. H. Bradley, clerk.

165

REPLICATION.

Application, filed
June 29, 1887.

United States of America, Northern District of Illinois, ss:

In the Circuit Court of the United States, N. Dist. of Illinois,
June Term, A. D. 1887.

The People of the State of Illinois ex Rel.,
etc.,

vs.

The Illinois Central Railroad Company
et al.

} In Chancery.

The replication of The People of the State of Illinois, complainant, to the amended answer of The Illinois Central Railroad Company, defendant, to the amended information filed in said cause.

These repliants, saving and reserving to themselves now and at all times hereafter all and all manner of benefit and advantage of exception which may be had or taken to the manifold insufficiencies of the said answer of the said defendant, for replication thereunto say that they will aver, maintain, and prove their amended information to be true, certain, and sufficient in the law to be answered unto, and that the said answer of the said defendant is uncertain, untrue, and insufficient to be replied unto by these repliants; without this, that any other matter or thing whatsoever in the said answer contained material or effectual in the law to be replied unto, and not herein and hereby well and sufficiently replied unto, confessed and avoided, traversed or denied, is true; all which matters and things these repliants are ready to aver, maintain, and prove as this honorable court shall direct, and humbly pray as in and by their said amended information they have already prayed.

GEORGE HUNT,

Solicitor for Complainant.

(Endorsed:) Filed this 29th day of June, A. D. 1887. Wm. H. Bradley, clerk.

Afterward, to wit, on the thirtieth day of June, 1887, came the Illinois Central Railroad Company, by its solicitors, and filed in said clerk's office its amendment to its answer in said entitled cause; which said amendment is in the words and figures following, to wit:

Amendment to
answer of I. C.
R. R. Co., filed
June 13, 1887.

166

AMENDMENT TO ANSWER.

United States of America, Northern District of Illinois, ss:

In the Circuit Court of the United States in and for said District.

The People of the State of Illinois ex Rel.
George Hunt, Att'y Gen.,
vs.

The Illinois Central Railroad Company
et al.

Information.

And now comes the said The Illinois Central Railroad Company one of the defendants in the above-entitled cause, and, for the purpose of further answering the amendments to the amended information last filed in said cause by leave of the court, by like leave of the court amends its answer to said amended information, as the same is now on file in said cause, as follows: After the words "this respondent, further answering, insists," at the beginning of the paragraph of said answer on the 30th page thereof and in the 23d line of said page and between said words and the words following the same, the following is inserted: "And charges it to be true that the said act was duly and constitutionally passed by the General Assembly of the State of Illinois over and notwithstanding the veto thereof by the governor of said State, and was duly signed and certified by the speakers of the senate and house of representatives of the said General Assembly respectively, and took effect as a law of said State and became obligatory as such on the day of its passage as aforesaid, to wit, the 16th day of April, A. D. 1869, according to the tenor and true intent and meaning of the terms and provisions thereof and."

ILLINOIS CENTRAL RAILROAD COMPANY,

By B. F. AYER, Its General Solicitor.

JNO. N. JEWETT, Of Counsel.

Amendment to
answer of I. C.
R. R. Co., filed
June 13, 1887.

All objections to the form of execution of the above amendment to answer of the Illinois Central Railroad Company are hereby waived.

GEO. HUNT, Att'y Gen'l,
Per E. B. McCAGG.

(Endorsed:) Filed June 30, 1887. Wm. H. Bradley, clerk.

Hearing, July 5,
1887.

Afterward, to wit, on the fifth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

173

ORDER.

The People of the State of Illinois	}	In Chancery.
ex Rel.		
George Hunt, Attorney General,		
vs.		
The Illinois Central Railroad Company		
et al.		

Now come the parties, by their solicitors, and this cause, being set for hearing this day, now comes on to be heard upon the pleadings and proofs; and, after hearing the arguments of counsel in part and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Afterward, to wit, on the sixth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Hearing, July 6,
1887.

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General, vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Afterward, to wit, on the seventh day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Hearing, July 7,
1887.

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General, vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Hearing, July 8,
1887.

Afterward, to wit, on the eighth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

174

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General, vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Hearing, July 9,
1887.

Afterward, to wit, on the ninth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General, vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until Monday morning next.

Afterward, to wit, on the eleventh day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit: Hearing, July 11, 1887.

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General. vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Afterward, to wit, on the twelfth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit: Hearing, July 12, 1887.

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General. vs. The Illinois Central Railroad Company et al.	}	In Chancery.
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Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing additional arguments of counsel and the hour of adjournment having arrived, it is ordered that further hearing herein be postponed until to-morrow morning.

Hearing, July 13,
1887.

Afterward, to wit, on the thirteenth day of July, in the July term of said court, 1887, in the record of the proceedings thereof in said entitled cause, before Hon. John M. Harlan, one of the justices of the Supreme Court, and Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel.	}	In Chancery.
George Hunt, Attorney General,		
vs.		
The Illinois Central Railroad Company et al.		

Now again come the parties, by their solicitors, and this cause again comes on to be heard upon the pleadings and proofs; and, after hearing the concluding arguments of counsel, the court takes the same under advisement.

Order, September
24, 1888.

Afterward, to wit, on the twenty-fourth day of September, 1888, the opinion of Justice John M. Harlan was filed and entered of record in said court in said entitled cause; which said opinion is in the words and figures following, to wit:

Monday, September 24, 1888.

Present: Hon. Henry W. Blodgett, district judge.

It is ordered that the following opinion in the case of The People of the State of Illinois against The Illinois Central Railroad Company, &c., be entered of record and made a part of the record in said case, to wit:

176 Circuit Court of the United States, Northern District
of Illinois.

Opinion, filed Sep-
tember 24, 1888.

People of the State of Illinois
vs.
Illinois Central Railroad Company, &c. } Information.

The City of Chicago
vs.
Illinois Central Railroad Company, &c. } Cross-Bill.

United States of America
vs.
Illinois Central Railroad Company, &c. } Information.

(February 23, 1888.)

Before Mr. Justice Harlan, circuit justice, and Hon. H. W.
Blodgett, district judge.

Mr. Justice Harlan delivered the opinion of the court:

The first of the above-named causes is a suit in equity in the name of The People of the State of Illinois against The Illinois Central Railroad Company, The City of Chicago, and The United States of America. It was commenced in the circuit court of Cook county, Illinois, and subsequently, on the petition of the railroad company, was removed into this court. A motion to remand the cause was denied upon grounds indicated in *State of Illinois vs. Illinois Central R. Co.*, 16 Fed. Rep., 1881. The railroad company and the city filed answers, and the latter also filed a cross-bill for affirmative relief against the State and its codefendants.

To that cross-bill the company filed an answer, as did also the attorney general of Illinois in behalf of the State. The United States has not appeared either in the original or cross suit. This cause may be regarded as under submission for final decree between the State, the railroad company, and the city in the original suit; also as between the city and the railroad company in the cross-suit. Notwithstanding the appearance in the cross-suit of the attorney general of Illinois in behalf of the State, some question is made as to the jurisdiction of the court to give to the city any affirmative

Opinion, filed September 24, 1888.

relief against the State; but that question need not be decided, since all the issues between the State and the city can be finally determined in the original suit brought by the State.

The last-named of the causes is an information in equity by the United States against The Illinois Central Railroad Company, The Michigan Central Railroad Company, The Chicago, Burlington and Quincy Railroad Company, The Baltimore and Ohio Railroad Company, and The City of Chicago. That case is now before us upon demurrer by the two first-named companies to the information.

The general object of these suits is to obtain a judicial determination of the rights of the parties in respect to certain lands on the east or lake front of the city of Chicago south of Chicago river, upon some of which are tracks, depots, warehouses, piers, and other structures erected by the Illinois Central Railroad Company, and also in respect to the submerged lands within the limits of the city of Chicago and of the State of Illinois "constituting the bed of Lake Michigan and lying east of the tracks and breakwater" of that company "for the distance of one mile and between the south line of the south pier (near Chicago river) extended eastwardly and a line extended eastward from the south line of lot 21, south of and near the round-house and machine shops of said company." The cases, besides, involve an inquiry as to the right of the railroad company, for the promotion as well of its own business as of commerce and navigation generally, to erect and maintain wharves, piers, and docks in the harbor of Chicago.

Some of these lands were formerly a part of what was known as Fort Dearborn military post, or the southwest quarter of fractional section 10, near the mouth of Chicago river, others, a part of fractional section 15; while others are in section 22; all of said sections being in township 39 north, range 14 east, of the third principal meridian, and on the shore of Lake Michigan in the order named.

It is necessary to a clear understanding of the numerous questions presented for determination that we should first trace the history of the title to these several bodies of lands

up to the time when the Illinois Central Railroad was located within the limits of Chicago.

Opinion, filed September 24, 1888.

First. As the lands embraced in the Fort Dearborn reservation.

In the year 1804 the United States established the military post of Fort Dearborn, immediately south of Chicago river and near its mouth, upon the southwest fractional quarter of section 10. It was occupied by troops as well when Illinois, in 1818, was admitted into the Union as when Congress passed the act of March 3, 1819, authorizing the sale of certain military sites. By that act it was provided—

"That the Secretary of War be, and he is hereby, authorized, under the direction of the President of the United States, to cause to be sold such military sites, belonging to the United States, as may have been found, or become, useless for military purposes. And the Secretary of War is hereby authorized, on the payment of the consideration agreed for into the Treasury of the United States, to make, execute, and deliver all needful instruments conveying and transferring the same in fee; and the jurisdiction, which had been specially ceded, for military purposes, to the United States, by a State, over such site or sites, shall thereafter cease." 3 Stat., 520.

In 1824, upon the written request of the Secretary of War, the southwest quarter of fractional section 10, containing about 57 acres and within which Fort Dearborn was situated, was formally reserved by the Commissioner of the General Land Office from sale and for military purposes. *Wilcox v.*

Jackson, 13 Pet., 499, 452. The United States admit, 178 and it is also proved, that the lands so reserved were subdivided in 1837 by authority of the Secretary—he being represented by one Matthew Birchard, as special agent and attorney for that purpose—into blocks, lots, streets, and public grounds, called the Fort Dearborn addition to Chicago; and on the 7th day of June, 1839, a map or plat of that addition was acknowledged by Birchard, as such agent and attorney, and was recorded in the proper local office. A part of the ground embraced in that subdivision was marked on the recorded plat "Public ground forever to remain vacant of buildings."

Opinion, filed Sep-
tember 24, 1888.

The plat of that subdivision, called map A, is reproduced on the opposite page, and in the margin will be found the certificates which appear on the plat as made and recorded.*

(Here follows diagram.)

*—Fort Dearborn addition to Chicago, as represented on the adjacent plat, is laid out into blocks, lots, and streets upon and embraces the whole of the southwest fractional quarter of section ten (10), township thirty-nine (39), north, range No. fourteen (14) east, of the 3d principal meridian.

The largest figures on said plat indicate the number of the blocks. The next smaller figures, near the center of the lots, show the number of the lots respectively in each block. The next size of figures, still smaller, in the interior side of the boundary of the several streets and on the division lines of the lots, represent the measurement of the respective lots in feet and inches.

The figures written transversely to and in the streets and alleys show the width of the same in feet at different points, and the figures on the exterior lines of the blocks represent the measurement of the blocks upon which they stand.

From the west boundary of the said fraction of section (10) is laid off and appropriated 60 feet in width as an addition to State street, and from the south boundary of said section 40 feet as an addition to Madison street.

The width of the rear of the water lots bounded upon the Chicago river is determined and established by posts set at the intersection of the lines of the lots and streets with meanders of the river, as shown by the notes thereof entered upon the meander lines. The lines between the lots in block (2) are run at right angles to the N. W. line of River street.

The public ground between Randolph and Madison streets and fronting upon Lake Michigan is not to be occupied with buildings of any description.

At the S. E. corner of block (13), at the angle of Wabash and Washington streets, is set a limestone 4 by 6 inches and 2 feet long, at least 18 inches below the natural surface of the ground. Also another stone of similar description is set at the angle formed by the junction of River with South Water street, in block (3), and also one other stone of like dimensions at the N. E. corner of block (7) at the angle of South Water street and Michigan avenue.

At the corner of sections 9, 10, 15, and 16 is a stone near the centre of State street, which was set by the commissioners of the Illinois and Michigan canal in 1836.

The bearing of South Water, Lake, Randolph, and Washington is N. 83° E. The bearing or course of Madison street is N. 82° E. The course of River street from South Water street to Harbor street is N. 29° E., thence to Lake Michigan N. 83° E.

Course of State and Wabash streets and Michigan avenue is N. 8° 5' W. All bearings were taken without any variations of the compass.

For J. R. POINSETT, *Sec. of War*,
M BIRCHARD, *Agent and Atty.*

STATE OF ILLINOIS, }
Cook County. }

Be it remembered that on this seventh day of June, in the year of our Lord one thousand eight hundred and thirty nine, before me, Henry Brown, a justice of the peace in and for said county, came Mathew Birchard, solicitor of the General Land Office and agent of the War Department of the United States, to me personally known, and exhibited a power of attorney from the Secretary of the Department of War of the United States, executed officially by said Secretary under the seal of said department, by direction of the President of the United States, authorizing him, the said Mathew Birchard,

Opinion, filed September 24, 1888.

179 The lots designated on this plat were sold and conveyed by the United States to different purchasers. The sale and conveyance (to use the words of the information filed by the United States) was "by and according to the said plat and with reference to the same." But it should be stated that at the time of the first sales the United States expressly reserved from sale all of the Fort Dearborn addition (including the ground marked for streets) north of the south line of lot 8, in block 2; lots 4 and 9, in block 4, and lot 5, in block 5, projecting said lines across the adjacent streets. The grounds so specially reserved remained in the occupancy of the General Government for military purposes from 1839 until after 1845. The legal effect of that occupancy appears in *United States v. Chicago*, 7 How., 185. The city of Chicago having proposed, in 1844, to open Michigan avenue through the lands so reserved from sale, notwithstanding at the time they were in actual use for military purposes, the United States instituted a suit in equity to restrain the city from so doing. It appeared in the case that the agent of the General Government gave notice at the time of selling the other lots that the ground in actual use by the United States was not then to be sold. It also appeared that the act of March 4, 1837, incorporating the city of Chicago and designating the district of country embraced within its limits expressly excepted "the southwest fractional quarter of section 10, occupied as a military post, until the same shall become private property." Laws Ill., 1837, pp. 38, 74.

The court held that the city had no right to open streets through that part of the ground which, although laid out in lots and streets, had not been sold by the Government; that its corporate powers were limited to the part which, by sale, had become private property, and that the streets laid out and dedicated to public use by Birchard, the agent of the Secretary of War, did not merely by his surveying the land into lots and streets and making and recording a map or plat

to cause to be surveyed, platted, duly acknowledged, and recorded as an addition to the town of Chicago, Illinois, the southwest fractional quarter of section ten, heretofore reserved for military purposes, and the site of Fort Dearborn, and the same to sell, &c., and acknowledged the foregoing map to be the map and plat of the Fort Dearborn addition to the town of Chicago, and that the United States of America are the sole proprietors and the owners of the same.

HENRY BROWN,
Justice of the Peace."

Opinion, filed September 24, 1888.

thereof, convey the legal estate in such streets to the city, and thereby authorize it to open them for public use and assume full municipal control thereof. The court held to be untenable the claim of the city that "because streets had been laid down on the plan by the agent (Birchard), part of which extended into the land not sold, those parts had, by this alone, become dedicated as highways and the United States had become estopped to object." Further: "It is entirely unsupported by principle or precedent that an agent, merely by protracting on the plan those streets into the reserved line and amidst lands not sold nor meant then to be sold, but expressly reserved, could deprive the United States of its 180 title to real estate and to its important public works."

See also *Irwin v. Dixon*, 9 How., 31.

Second. As to the lands in controversy embraced in fractional section 15:

This section is on the lake shore, immediately south of section 10. The particular lands, the history of the title to which is to be now examined, are between the west line of the street now known as Michigan avenue and the roadway or way-ground of the Illinois Central Railroad Company, and between the middle line of Madison street and the middle line of Twelfth street, excluding what is known as Park row or block 23, north of Twelfth street.

By an act of the Illinois legislature of February 14, 1823, entitled "An act to provide for the improvement of the internal navigation of this State," certain persons were constituted commissioners to devise and report upon measures for connecting, by means of a canal and locks, the navigable waters of the Illinois river and Lake Michigan. Ill. Laws, 1823, p. 151. This was followed by an act of Congress approved March 2, 1827, entitled "An act to grant a quantity of land to the State of Illinois for the purpose of aiding in opening a canal to connect the waters of the Illinois river with those of Lake Michigan," granting to this State, for the purposes of such enterprise, a quantity of land equal to one-half of five sections in width on each side of the proposed canal (reserving each alternate section to the United States), to be selected by the Commissioner of the General Land Office, under direction of the President; said lands to be "sub-

ject to the disposal of the said State for the purpose aforesaid, and for no other," and said canal to remain forever a public highway for the use of the National Government, free from any charge for any property of the United States passing through it. 4 Stat., 234, ch. 51.

Opinion, filed September 24, 1888.

The power of the State to dispose of these lands was further recognized or conferred by the third section of the act, as follows: "§ 3. That the said State, under the authority of the legislature thereof, after the selections shall have been so made, shall have power to sell and convey the whole or any part of the said land, and to give a title in fee simple therefor to whomsoever shall purchase the whole or any part thereof." 4 Stat., 234.

By an act of the Illinois legislature of January 22, 1829, entitled "An act to provide for constructing the Illinois and Michigan canal," the commissioners for whose appointment that act made provision were directed to select, in conjunction with the Commissioner of the General Land Office, the alternate sections of land granted by the act of Congress, such commissioners being invested with the power, among others, "to lay off such parts of said donation into town lots as they may think proper, and to sell the same at public sale in the same manner as is provided in this act for the sale of other lands." Laws of Ill., 1829.

The act of 1829 was amended February 15, 1831, so as to constitute the canal commissioners a board to be known as the "board of canal commissioners of the Illinois and Michigan canal," with authority to contract and be contracted with, sue and be sued, plead and be impleaded, and with power of control in all matters relating to said canal. Ill. Laws, 1830-'1, p. 39.

Pursuant to and in conformity with said acts of Congress and of the legislature of Illinois, the selection of lands for the purposes specified was made by the proper authorities and approved by the President on the 21st of May, 1830. Among the lands so selected was said fractional section 15.

By an act of the Illinois legislature, approved January 9, 1836, entitled "An act for the construction of the Illinois and

Opinion, filed September 24, 1888.

Michigan canal," the governor was empowered to negotiate a loan of not exceeding \$500,000 on the credit and faith of the State, as therein provided, for the purpose of aiding, in connection with such means as might be received from the United States, in the construction of the Illinois and Michigan canal, for which loan should be issued certificates of stock, to be called the "Illinois and Michigan canal stock," signed by the auditor and countersigned by the treasurer, bearing an interest not exceeding six per cent., payable semi-annually, and "reimbursable" at the pleasure of the State at any time after 1860, and for the payment of which, principal and interest, the faith of the State was irrevocably pledged. The same act provided for the appointment of three commissioners to constitute a board to be known as the board of commissioners of the Illinois and Michigan canal," and to be a body politic and corporate, with power to contract and be contracted with, sue and be sued, plead and be impleaded, in all matters and things relating to them as canal companies, and to have the immediate care and superintendence of the canal and all matters relating thereto. Laws Ill., 1836, p. 145.

That act contained, among other provisions, the following:

"§ 32. The commissioners shall examine the whole canal route, and select such places thereon as may be eligible for town sites, and cause the same to be laid off into town lots, and they shall cause the canal lands in or near Chicago, suitable therefor, to be laid off into town lots.

"§ 33. And the said board of canal commissioners shall, on the 20th day of June next, proceed to sell lots in the town of Chicago, and such parts of the lots in the town of Ottawa, as also fractional section fifteen adjoining the town of Chicago, it being first laid off and subdivided into town lots, streets and alleys, as in their best judgment will best promote the interest of the said canal fund: Provided, always, that before any of the aforesaid town lots shall be offered for sale, public notice of such sale shall have been given." * * * Ill. Laws, 1836, p. 149. The revenue arising from the canal, and from any lands granted by the United States to the State for its construction, together with the net tolls thereof, were pledged by the act for the payment of the interest accruing

on the said stock, and for the reimbursement of the principal of the same. *Ibid.*, p. 153.

Opinion, filed September 24, 1868.

In 1836 the canal commissioners, under the authority conferred upon them by the statutes above recited, caused fractional section 15 to be subdivided into lots, blocks, 182 streets, &c., a map whereof was made, acknowledged, and recorded on the 20th of July, 1836. A map (the official certificates as they appear on the original map as recorded being in the margin*) is reproduced on the opposite page as map B.

(Here follows diagram.)

*STATE OF ILLINOIS, }
Cook County, } ss.

We, the undersigned, commissioners of the Illinois and Michigan canal, in pursuance of the statute in such case made and provided, have caused fractional section number fifteen (15), township thirty-nine north, range fourteen east, adjoining or cornering with the original town of Chicago, to be laid off into lots, &c., as appears by the above plat; planted stones as designated at different corners, from which to make future surveys; and we do hereby acknowledge the same, the full width and length of the lots and width of the streets and avenues as marked, delineated, and laid down, as and for the true plat or map of the subdivision of said section.

Given under our hands and seals, at Chicago, the thirteenth day of June, A. D. 1836.

(Signed)
(")
(")

W. F. THORNTON. {SEAL.
W. B. ARCHER. {SEAL.
G. S. HUBBARD. {SEAL.

RECORDER'S OFFICE, }
Cook County, Illinois, } ss.

I certify that the foregoing map of fractional section 15 was filed for record on the 18th day of June, 1836, and was duly recorded on the 20th day of July, 1836, in Book H, page 230.

(Signed)

RICHARD J. HAMILTON,
Recorder, Cook County, Illinois.

STATE OF ILLINOIS, }
County of Cook, } ss.

On this thirteenth day of June, in the year one thousand eight hundred and thirty-six, personally appeared before the undersigned, one of the justices of the Supreme Court of the State of Illinois, W. F. Thornton, W. B. Archer, and G. S. Hubbard, known to the undersigned to be the same persons who have signed and sealed this map, who severally acknowledged the same to be the true and original map of fractional section number fifteen, township thirty-nine north, range fourteen east, of the third principal meridian, as surveyed and subdivided by them pursuant to law.

Given at Chicago the day and year before recited.

(Signed)

THEOPHILUS W. SMITH.

I, Robert Milne, secretary of the board of canal commissioners, certify that the above map or plat, with the certificates annexed of W. F. Thornton, W. B. Archer, and G. S. Hubbard, Edward B. Talcott, assistant engineer; Richard

Opinion, filed September 24, 1888.

183 It is proper to say that upon some of the maps in evidence and duly certified the words "Michigan avenue" are nearer to the shore line than they appear to be on map B. This fact tends to show that the entire space between the shore line and the lots, into which fractional section 15 was subdivided, was originally intended as an avenue or public grounds or commons.

At the time this map was made and recorded fractional sections 15 and 10 were both within the limits of the "town" of Chicago, except that by the act of February 11, 1835, changing the corporate powers of that town, it was provided "that the authority of the board of trustees of the said town of Chicago shall not extend over the south fractional section 10 until the same shall cease to be occupied by the United States." Ill. Laws, 1835, p. 204. But, prior to the survey and recording of the plat of fractional section 10, to wit, by the act of March 4, 1837, the city of Chicago was incorporated and its limits defined (excluding, as we have seen, "the southwest fractional quarter of section 10, occupied as a military post, until the same shall become private property"), and was invested with all the estate, real and personal, belonging to or held in trust by the trustees of the town, its common council being empowered to lay out, make, and assess streets, alleys, lanes, and highways in said city, to make wharves and slips at the end of the streets, on property belonging to said city, and to

J. Hamilton, recorder, and Theophilus W. Smith, is a true copy of the original now in this office.

Witness my hand and the seal of the board of canal commissioners this 19th day of February, A. D. 1873.

(Signed)

ROBERT MILNE, *Secretary*.

Canal office, Lockport, Illinois, February 19, 1873.

I, Edward B. Talcott, assistant engineer in the employment of the board of commissioners of the Illinois and Michigan canal, do hereby certify that the above is a correct plat or map of fractional section number fifteen, township thirty-nine north, range fourteen east, of the third principal meridian, adjoining or cornering with the original town of Chicago, as subdivided and laid off into lots, etc., under the direction of said board of commissioners, and that the same portrays and sets forth the size, width and length of the lots; also the true and fixed width of the streets and avenues. The letter S at the corners of the fraction and blocks, as marked, denotes where stones are planted deep in the ground from which to make future surveys.

Given under my hand, at Chicago, the thirteenth day of June, A. D. one thousand eight hundred and thirty-six.

(Signed)

EDWARD B. TALCOTT,

Assistant Engineer.

Filed June 18th, 1836.

alter, widen, straighten, and discontinue the same. Laws Ill., 1837, p. 61, § 38; p. 74, § 61.

Opinion, filed September 24, 1888.

This brings us, in the chronological order of events relating to this litigation, to the incorporation of the Illinois Central Railroad Company and the location of its road within the limits of the city of Chicago.

Congress having, by an act approved September 20, 1850 (9 Stat., 406, ch. 51), made a grant of land to Illinois for the purpose of aiding the construction of a railroad from the southern terminus of the Illinois and Michigan canal to a point at or near the junction of the Ohio and Mississippi rivers, with branches to Chicago and Dubuque, the Illinois Central Railroad Company was incorporated February 10, 1851, and made the agent of the State to construct that road. *Pr. Laws Ill.*, 1851, p. 61. It was granted power by its charter "to survey, locate, construct, complete, alter, maintain, and operate a railroad, with one or more tracks or lines of rails, from the southern terminus of the Illinois and Michigan canal to a point at the city of Cairo, with a branch of the same to the city of Chicago, on Lake Michigan, and also a branch, via the city of Galena, to a point on the Mississippi river opposite the town of Dubuque, in the State of Iowa." In addition to certain powers, privileges, immunities, and franchises—including the right to purchase, hold and convey real and personal estate which might be needful to carry into effect the purposes and objects of its charter—it was provided that the company "shall have the right of way upon and may appropriate to its sole use and control for the purposes contemplated herein land not exceeding two hundred feet in width through its entire length; may enter upon and take possession of and use all and singular any lands, streams, and materials of every kind for the location of depots and stopping stages for the purposes of constructing bridges, dams, embankments, excavations, station grounds, spoil banks, turnouts, engine houses, shops and other buildings necessary for the construction, completing, altering, maintaining, preserving, and complete operation of said road. All such lands, waters, materials, and privileges belonging to the State are hereby granted to said corporation for said purposes: * * * Provided, that nothing in this section contained shall be so construed as to authorize the said corporation to interrupt the navigation of said

Opinion, filed September 24, 1888.

streams." § 3. But the company's charter also provided (§ 8): "Nothing in this act contained shall authorize said corporation to make a location of their track within any city without the consent of the common council of said city."

Such consent was given by an ordinance of the common council of Chicago, adopted June 14, 1852, whereby permission was granted to the company to lay down, construct, and maintain within the limits of that city and along the margin of the lake within and adjacent to the same a railroad with one or more tracks, and to have the right of way and all powers incident to and necessary therefor, upon certain terms and conditions, to wit: "The said road shall enter at or near the intersection of its southern boundary with Lake Michigan, and, following the shore on or near the margin of said lake northerly to the southern bounds of the open space known as Lake park, in front of canal section fifteen, and continue northerly across the open space in front of said section fifteen to such grounds as the said company may acquire between the north line of Randolph street and the Chicago river, in the Fort Dearborn addition in said city, upon which said grounds shall be located the depot of said railroad within the city, and such other buildings, slips, or apparatus as may be necessary and convenient for the business of said company. But it is expressly understood that the city of Chicago does not undertake to obtain for said company any right of way, or other right, privilege, or easement, not now in the power of said city to grant or confer, or to assume any liability or responsibility for the acts of the said company." § 1.

By other sections of the ordinance it was provided as follows:

By the second section, that the company might "enter upon and use in perpetuity for its said line of road, and other works necessary to protect the same from the lake, a width of 300 feet, from the southern boundary of said public ground near Twelfth street, to the northern line of Randolph street—the inner or west line of the ground to be used by said company to be not less than 400 feet east from the west line of Michigan avenue and parallel thereto;"

By the third section, that they "may extend their works and fill out into the lake to a point in the southern pier not

less than 400 feet west from the present east end of the same, thence parallel with Michigan avenue to the north line of Randolph street extended; but it is expressly understood that the common council does not grant any right or privilege beyond the limits above specified, nor beyond the 185 line that may be actually occupied by the works of said company:"

Opinion, filed September 24, 1888.

By the sixth section, that the company "shall erect and maintain on the western or inner line of the ground pointed out for its main track on the lake shore, as the same is heretofore defined, such suitable walls, fences, or other sufficient works, as will prevent animals from straying upon or obstructing its tracks, and secure persons and property from danger, said structure to be of suitable materials and slightly appearance, and of such heights as the common council may direct, and no change thereon shall be made except by mutual consent: Provided, that the company shall construct such suitable gates at proper places at the ends of the streets, which are now or may hereafter be laid out, as may be required by the common council, to afford safe access to the lake: And provided, also, that, in case of the construction of an outside harbor, streets may be laid out to approach the same, in the manner provided by law, in which case the common council may regulate the speed of locomotives and trains across them:"

By the seventh section, that the company "shall erect and complete within three years after they shall have accepted this ordinance, and shall forever thereafter maintain, a continuous wall or structure of stone masonry, pier work, or other sufficient material, of regular and slightly appearance, and not to exceed in height the general level of Michigan avenue opposite thereto, from the north side of Randolph street to the southern bound of Lake park before mentioned at a distance of not more than 300 feet east from and parallel with the western or inner line, pointed out for said company, as specified in section two hereof, and shall continue said works to the southern boundary of the city, at such distance outside of the track of said road as may be expedient, which structure and works shall be of sufficient strength and magnitude to protect the entire front of said city, between the north line of Randolph street and its southern boundary, from further damage or injury from the action of the

Opinion, filed September 24, 1888.

waters of Lake Michigan, and that part of the structure south of Lake park shall be commenced and prosecuted with all reasonable despatch after acceptance of this ordinance;"

By the eighth section, that the company "shall not in any manner nor for any purpose whatever occupy, use, or intrude upon the open ground known as Lake park, belonging to the city of Chicago, lying between Michigan avenue and the western or inner line before mentioned, except so far as the common council may consent, for the convenience of said company while constructing or repairing the works in front of said ground;"

By the ninth section, that the company "shall erect no buildings between the north line of Randolph street and the south line of the said Lake park, nor occupy nor use the works proposed to be constructed between these points, except for the passage of or for making up or distributing their trains nor place upon any part of their works between said points any obstruction to the view of the lake from the shore, nor suffer their locomotives, cars, or other articles to rest upon their tracks, but only erect such works as are proper for the construction of their necessary tracks and protection of the same."

The company was given ninety days within which to accept the ordinance, and it was provided that upon such acceptance its terms should be embodied in a contract between the city and the company. The ordinance was accepted and the required agreement entered into on the 8th day of July, 1852.

At the time this ordinance was passed the harbor of the city included, under the laws of the State incorporating the city, "the piers and so much of Lake Michigan as lies within the distance of one mile thereof into the lake, and the Chicago river and its branches to their respective sources." Laws Ill., 2d sess., 1849 and 1851, pp. 132, 147. Its common council had power, at the public expense, to construct a breakwater or barrier along the shore of the lake for the protection of the city against the encroachments of the water; "to preserve the harbor; to prevent any use of the same or any act in relation thereto * * * tending in

Opinion, filed September 21, 1888.

any degree to fill up or obstruct the same; to prevent and punish the casting or depositing therein any earths, ashes, or other substance, filth, logs, or floating matter; to prevent and remove all obstructions therein and to punish the authors thereof; to regulate and prescribe the mode and speed of entering and leaving the harbor and of coming to and departing from the wharves and streets of the city by steamboats, canal boats, and other crafts and vessels, * * * and to regulate and prescribe by such ordinances or through their harbor master or other authorized officer such a location of every canal boat, steamboat, or other craft or vessel or float and such changes of station in and use of the harbor as may be necessary to promote order therein and the safety and equal convenience, as near as may be, of all such boats, vessels, crafts, or floats;" "to remove and prevent all obstructions in the waters which are public highways in said city, and to widen, straighten, and to deepen the same," and to "make wharves and slips at the end of streets and alter, widen, contract, straighten, and discontinue the same." Ibid.

Under the authority of its charter and of the ordinance of June 14, 1852, the railroad company located its tracks within the corporate limits of the city. The tracks northward from Twelfth street were laid upon piling placed in the waters of the lake, the shore line, which was crooked, being at that time at Park row, about 400 feet from the west line of Michigan avenue, at the foot of Monroe and Madison streets about 90 feet, and at Randolph street about 112 1-2 feet. Since that time the space between the shore line and the tracks of the railroad company has been filled with earth by or under the direction of the city and is now solid ground. After the construction of the track, as just stated, the railroad company erected a breakwater east of its roadway upon a line parallel with the west line of Michigan avenue and subsequently filled the space or nearly all of it between that breakwater and its tracks and under its tracks with earth and stone.

It is stated by counsel, and the record, we think, sufficiently shows, that when the road was located, in 1852, 187 nearly all of the lots bordering upon the lake north of Randolph street had become the property of individ-

Opinion, filed September 24, 1888.

uals by purchase from the United States, except a parcel adjacent to the river which had not then been sold by the General Government. Soon thereafter the company acquired the title to all of the water lots in the Fort Dearborn addition north of Randolph street, including the remaining parcel belonging to the United States. The deed for the latter was made by the Secretary of War October 14, 1852, and included "all the accretions made or to be made by said lake and river in front of the land hereby conveyed and all other rights and privileges appertaining to the United States as owners of said land." The company established its passenger-house at the place designated in the ordinance of 1852, and, being the owner of said water lots north of Randolph street, it gradually pushed its works out into the shallow water of the lake to the exterior line specified in that ordinance, 1,376 feet east of the west line of Michigan avenue.

In order that the railroad company might approach its passenger depot the common council, by ordinance adopted September 10, 1855, granted it permission to curve its tracks westwardly of the line fixed by the ordinance of 1852, "so as to cross said line at a point not more than 200 feet south of Randolph street, extending and curving said tracks northwesterly as they approach the depot and crossing the north line of Randolph street extended at a point not more than 100 feet west of the line fixed by the ordinance, in accordance with the map or plat thereof submitted by said company and placed on file for reference." This grant was, however, upon the following conditions: That the company lay out upon its own land, west of and alongside its passenger-house, a street 50 feet wide, extending from Water street to Randolph street, and fill the same up its entire length within two years from the passage of said ordinance; that it should be restricted in the use of its tracks south of the north line of Randolph street, as provided in the ordinance of 1852; and "when the company shall fill up its said tracks south of the north line of that street down to the point where said curves and side tracks commence, and the city shall grant its permission so to fill up its tracks, it should also fill up at the same time and to an equal height all the space between the track so filled up and the lake shore as it now exists from the north side of Randolph street down to

the point where said curves and side tracks intersect the line fixed by the ordinance aforesaid."

Opinion, filed September 24, 1884.

The company's tracks were curved as permitted; the street referred to was opened and has ever since been used by the public, and the required filling was done.

It being necessary that the railroad company should have additional means of approaching and using its station grounds between Randolph street and the Chicago river, the city, by another ordinance, adopted September 15, 1856, granted it permission "to enter and use in perpetuity, for its line of railroad and other works necessary to protect the same from the lake, the space between its present (then) breakwater and a line drawn from a point on said breakwater 700 feet south of the north line of Randolph extended, 188 and running thence on a straight line to the southeast corner of its present breakwater, thence to the river: Provided, however, and this permission is only given upon the express condition, that the portion of said line which lies south of the north line of Randolph street extended shall be kept subject to all the conditions and restrictions, as to the use of the same, as are imposed upon that part of said line by the said ordinance of June 14, 1852."

In 1867 the company made a large slip just outside of the exterior line fixed by the ordinance of 1852, thereby extending its occupancy between Randolph street and Chicago river further to the east. Along the outer edge of this pier a continuous line of dock piling was placed, extending on a line from the river to the north line of Randolph street 1,792 feet distant from the west line of Michigan avenue. This line formed the company's breakwater between the river and Randolph street at the time of the passage, April 16, 1869, of what is known as the lake front act.

In view of the important questions raised and of the rights asserted under that act, it is here given in full:

"An act in relation to a portion of the submerged lands and Lake park grounds, lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago.

"§ 1. Be it enacted by the people of the State of Illinois,

Opinion, filed September 24, 1888.

represented in the General Assembly, That all right, title and interest of the State of Illinois in and to so much of fractional section 15, township thirty-nine, range fourteen east, of the third principal meridian, in the city of Chicago, county of Cook, and State of Illinois, as is situated east of Michigan avenue and north of Park row, and south of the south line of Monroe street, and west of a line running parallel with and four hundred feet east of the west line of said Michigan avenue—being a strip of land four hundred feet in width, including said avenue, along the shore of Lake Michigan, and partially submerged by the waters of said lake—are hereby granted in fee, to the said city of Chicago, with full power and authority to sell and convey all of the said tract east of said avenue, leaving said avenue ninety feet in width, in such manner and upon such terms as the common council of said city may, by ordinance, provide: Provided, that no sale or conveyance of said property, or any part thereof, shall be valid unless the same be approved by a vote of not less than three-fourths of all the aldermen elect.

"§ 2. The proceeds of the sale of any and all of said lands shall be set aside, and shall constitute a fund, to be designated as the 'park fund' of the said city of Chicago, and said fund shall be equitably distributed by the common council between the south division, the west division, and the north division of the said city, upon the basis of the assessed value of the taxable real estate of each of said divisions, and shall be applied to the purchase and improvement in each of said divisions or in the vicinity thereof, of a public park, or parks, and for no other purpose whatsoever.

"§ 3. The right of the Illinois Central Railroad Company, under the grant from the State in its charter, which said 189 grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent. of its gross earnings, and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands submerged or otherwise lying east of the said line running parallel with and 400 feet east of the west line of Michigan avenue, in fractional sections ten and fifteen, township and range as aforesaid, is hereby confirmed, and all the right and title of the State of Illinois in and to the submerged lands constituting the bed or

Lake Michigan, and lying east of the tracks and breakwater of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of the said city of Chicago, are hereby granted, in fee, to the said Illinois Central Railroad Company, its successors and assigns: Provided, however, that the fee to said lands shall be held by said company in perpetuity and that the said company shall not have power to grant, sell or convey the fee to the same; and that all gross receipts from use, profits, leases or otherwise of said lands, or the improvements thereon, or that may hereafter be made thereon, shall from a part of the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall forever pay into the State treasury semi-annually, the percentum provided for in its charter, in accordance with the requirements of said charter: And provided, also, that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation; nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns, from any act of the General Assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor: And provided further, that any of the lands hereby granted to the Illinois Central Railroad Company, and the improvements now, or which may hereafter be on the same, which shall hereafter be leased by said Illinois Central Railroad Company to any person or corporation, or which may hereafter be occupied by any person or corporation other than said Illinois Central Railroad Company, shall not, during the continuance of such leasehold estate or of such occupancy, be exempt from municipal or other taxation.

Opinion, filed September 24, 1888.

"§ 4. All the right and title of the State of Illinois, in and to the lands, submerged or otherwise lying north of the south line of Monroe street, and south of the south line of Randolph street, and between the east line of Michigan avenue and the track and roadway of the Illinois Central Railroad Company, and constituting parts of fractional sections ten and fifteen in said township thirty-nine, as aforesaid, are

Opinion, filed September 24, 1888.

hereby granted, in fee, to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said company may require: Provided, that upon all gross receipts of the Illinois Central Railroad Company, from leases of its interest in said grounds, or improvements thereon, or other uses of the same, the per centum provided for in the charter of said company shall forever be paid in conformity with the requirements of said charter.

"§ 5. In consideration of the grant to the said Illinois Central, Chicago, Burlington and Quincy, and Michigan Central Railroad Companies of this land as aforesaid, said companies are hereby required to pay to said city of Chicago the sum of eight hundred thousand dollars, to be paid in the following manner, viz: two hundred thousand dollars within three months from and after the passage of this act; two hundred thousand dollars within six months from and after the passage of this act; two hundred thousand dollars within nine months from and after the passage of this act; two hundred thousand dollars within twelve months from and after the passage of this act; which said sums shall be placed in the park fund of the said city of Chicago, and shall be distributed in like manner as is hereinbefore provided for the distribution of the other funds which may be obtained by said city from the sale of the lands conveyed to it by this act.

"§ 6. The common council of the said city of Chicago is hereby authorized and empowered to quitclaim and release to the said Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company any and all claim and interest in and upon any and all of said land north of the south line of Monroe street, as aforesaid, which the said city may have by virtue of any expenditures and improvements thereon or otherwise, and in case the said common council shall neglect or refuse thus to quitclaim and release to the said companies, as aforesaid, within four months from and after the passage of this act, then the said companies shall be discharged from all obligation to pay the balance remaining unpaid to said city.

"§ 7. The grants to the Illinois Central Railroad Company contained in this act are hereby declared to be upon the express condition that said Illinois Central Railroad Company shall perpetually pay into the treasury of the State of Illinois the percentum on the gross or total proceeds, receipts, or income derived from said road and branches stipulated in its charter, and also the percentum on the gross receipts of said company reserved in this act.

Opinion, filed September 24, 1888.

"§ 8. This act shall be a public act and in force from and after its passage.

"Passed over veto, 16th April, 1869."

As early as May, 1869, the railroad company caused to be prepared a plan for an outer harbor at Chicago.

On the 12th of July of the same year the Illinois Central Railroad Company, the Michigan Central Railroad Company, and the Chicago, Burlington and Quincy Railroad Company, by an agent, tendered to Walter Kimball, the comptroller of the city of Chicago, the sum of \$200,000 as

the first payment to the city under the fifth section of 191 the act of 1869. He received the sum tendered upon the express condition that none of the city's rights be thereby waived or its interest in any manner prejudiced, and placed the money in bank on special deposit to await the action and direction of the common council. The matter being brought to the attention of that body, it adopted, June 13, 1870, a resolution declaring that the city "will not recognize the act of Walter Kimball in receiving said money as binding upon the city, and that the city will not receive any money from railroad companies under said act of the General Assembly until forced to do so by the courts." The city never quitclaimed or released nor offered to quitclaim or release to said companies or to either of them any right, title, claim, or interest in or to any of the land described in the act of 1869, nor was Kimball's act in receiving the money ever recognized by the city as binding upon it. On the expiration of his term of office he did not turn the money over to his successor in office, but kept it deposited in bank to his own individual credit and so kept it until some time during the year 1874 or later, when, upon application by the railroad

Opinion, filed September 24, 1888.

companies, he returned it to them. No other money than the \$200,000 delivered to Kimball was ever tendered by the railroad companies or either of them to the city or to any of its officers.

At a meeting of the board of directors of the Illinois Central Railroad Company held at the company's office in New York July 6, 1870, a resolution was adopted to the effect "that this company accepts the grants under the act of the legislature at its last session, and that the president give notice thereof to the State, and that the company has commenced work upon the shore of the lake at Chicago under the grants referred to." On the 17th of November, 1870, its president communicated a copy of this resolution to the secretary of State of Illinois and gave the notice therein required, adding: "You will please regard the above as an acceptance by this company of the above-mentioned law (lake front act), and it is desired by said company that said acceptance shall remain permanently on file and of record in your office." The secretary of state replied under date of November 18, 1870: "Yours of the 17th inst., being a notice of the acceptance by the Illinois Central Railroad Company of the grants under an act of the legislature of Illinois in force April 16, 1869, was this day received and filed and duly recorded in the records of this office."

Following these transactions were certain proceedings commenced about July 1, 1871, by information filed in this court by the United States against the Illinois Central Railroad Company. That information set forth that Congress, in order to promote the convenience and safety of vessels navigating Lake Michigan, had from time to time appropriated and expended large sums of money in and about the mouth of Chicago river and had constructed two piers extending from the north and south banks of that river eastwardly for a considerable distance into the lake; that in July, 1870, it appropriated a large sum of money to construct an outer harbor at Chicago in accordance with the plans of 192 the engineer department of the United States; that the railroad company had from time to time wrongfully filled up with earth a portion of said lake within said harbor; that what the company had then done in that way and what it intended to do unless prevented would materially interfere

with the execution of the plan of improvement adopted by the War Department. A temporary injunction was issued against the company. Subsequently in 1872 the parties to that suit entered into a stipulation from which it appears that the matters referred to in said information relating to the construction of docks and wharves in the basin or outer harbor of the city formed by the breakwater then in process of erection by the United States were referred to the War Department, and that the secretary, upon the recommendation of engineer officers, approved certain lines limiting the construction of docks and wharves in said outer harbor, to wit: Commencing at the pier on the south side of the entrance to the Chicago river, 1,200 feet west of the Government breakwater, thence south to an intersection with the north line of Randolph street extended eastwardly, thence due west 800 feet, and thence south to the east and west breakwater proposed to be constructed by the United States, 4,000 feet south of the pier first above mentioned, the line so established being fixed as the line to which docks and wharves may be extended by parties entitled to construct them within said outer harbor. The railroad company desiring to proceed, under the supervision of the engineer bureau of the United States, with the construction of docks and wharves within the proposed outer harbor between the pier on the south side of the entrance to Chicago river and the north line of Randolph street extended eastwardly in conformity with the said limiting lines, and having agreed to observe said lines, as well as the directions which might be given, in reference to the construction of said docks and wharves by the proper officers of said bureau, the injunctive order pursuant to stipulation between the parties was, January 16, 1872, vacated and the information dismissed, with leave to the United States to reinstate the same upon the failure of the company in good faith to observe the said conditions.

Subsequently the railroad company resumed work on and during the year 1873 completed pier No. 1, adjacent to the river and east of the breakwater of 1869.

On the 15th of April, 1873, the legislature of Illinois passed the following act, which was in force from and after July 1, 1873:

"§ 1. Be it enacted, &c., That the act entitled 'An act in

Opinion, filed September 24, 1888.

Opinion, filed September 24, 1888.

relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' in force April 16, 1869, be and the same is hereby repealed."

In 1880 and 1881 piers Nos. 2 and 3, north of Randolph street, were constructed in conformity with plans submitted to and approved by the War Department.

The common council of Chicago, by ordinance approved July 12, 1881, extended Randolph street eastwardly and declared it to be a public street from its then eastern terminus 193 minus "to the west line of the right of way of the Illinois

Central Railroad Company, as established by the ordinance of September 10, 1855. * * * and also straight eastwardly * * * from the easterly line of slip C produced southerly to Lake Michigan," giving permission to the company to construct and maintain at its own expense, within the line of Randolph street so extended and over the company's tracks and right of way, a bridge or viaduct with suitable approaches, to be approved by the commissioners of public works, which should be forever free to the public and to all persons having occasion to pass and repass thereon. Such a bridge or viaduct was necessary in order that the piers constructed and in process of construction east of the breakwater of 1869 might be conveniently reached by teams. The viaduct was built in 1881, and extends to the base of pier 3. It has ever since been used by the public.

It appears from the evidence that in 1882 the pier which was built in 1870 from Twelfth street to the north line extended of lot 21 was continued as far south as the centre line of Sixteenth street. The main object of this extension, according to the showing made by the company, was to protect the tracks from the waves during storms from the northeast. Another object was to construct a slip or basin south of the south line of lot 21, between the breakwater and the shore, where vessels loaded with materials for the company or having freight to be handled could enter and be in safety. In 1855 a pier was constructed by the company at the foot of Thirteenth street according to a plan submitted to the War Department, and the department did not object to its construction, "provided no change be made in its location and

Opinion, filed September 24, 1888.

length." The pier as constructed does not differ from that proposed and approved, except that it is wider by fifty feet, but it does not appear that the War Department regards that change in the plan as injurious to navigation or as interfering with the plans of the Government for an outer harbor.

At the hearing a map was used for the purpose of showing the different works constructed by the United States, the location of all the structures and buildings erected by the railroad company, with the date of their erection, and the relation of the tracks and breakwaters of the company to the shore as it now is and to some extent as it was heretofore.

That map, known as the Morehouse map and called C, is reproduced on the opposite page.

(Here follows diagram.)

The State, in the original suit, asks a decree establishing and confirming her title to the bed of Lake Michigan and her sole and exclusive right to develop the harbor of Chicago by the construction of docks, wharves, &c., as against the claim by the railroad company that it has an absolute title to said submerged lands described in the act of 1869 and the right, subject to the paramount authority of the United States in respect to the regulation of commerce between the States, to fill the bed of the lake for the purposes of its business east of and adjoining the premises between the river and the north line of Randolph street, and also north of the south line of lot 21, and also the right by constructing and maintaining wharves, docks, piers, &c., to improve the shore of the lake for the purposes of its business and for the promotion generally of commerce and navigation. The State, insisting that the company has without right erected and proposes to continue to erect wharves, piers, &c., upon the domain of the State, asks that such unlawful structures be directed to be removed and the company enjoined from constructing others.

The city, by its cross-bill, insists that since June 7, 1839, when the map of Fort Dearborn addition was recorded, it has had the control and use for public purposes of that part of section 10 which lies east of Michigan avenue and between

Opinion, filed September 24, 1888.

Randolph street and fractional section fifteen, and that as successor of the town of Chicago it has had possession and control since June 13, 1836, when the map of fractional section 15 addition was recorded, of the lands in that addition north of block 23. It asks a decree declaring that it is the owner in fee and of the riparian rights thereunto appertaining of all said lands and has under existing legislation the exclusive right to develop the harbor of Chicago by the construction of docks, wharves, and levees and to dispose of the same by lease or otherwise as authorized by law, and that the railroad company be enjoined from interfering with its said rights and ownership.

The relief sought by the United States is a decree declaring the ultimate title and property in the "public ground" shown on the plat of the Fort Dearborn addition south of Randolph street and also in the open space shown on the plat of fractional section 15 addition to be in the United States, with the right of supervision and control over the harbor and navigable waters aforesaid; that the railroad companies and the city be enjoined from exercising any right, power, or control over said grounds or over the waters or shores of the lake; that the Illinois Central Railroad Company be restrained from making or constructing any piers, wharves, or docks and from driving piles, building walls, or filling with earth or other materials in the said lake, or from using any made ground or any piers, wharves, or other constructions made or built by or for it in or about the outer harbor to the east of the 200-foot strip of its way ground, or from taking or exacting any toll for such use, and that the Illinois Central Railroad Company be required to abate and remove all obstructions placed by it in said outer harbor, and to quit possession of all lands, waters, and made ground taken and held by it without right, as aforesaid.

The State, the city, and the General Government all unite in contending that the lake-front act of 1869 is inoperative and void for reasons that will be hereafter stated.

In disposing of the questions discussed by counsel it will be convenient to consider first those relating to the lands or grounds embraced in the Fort Dearborn addition to Chicago.

It is apparent from the facts stated that whatever title the Illinois Central Railroad Company has to the water lots in that addition, between Randolph street and the Chicago river, is derived as to some of them directly and as to others remotely from the United States. It is, however, insisted in behalf of the United States that the subdivision and platting of Fort Dearborn reservation into blocks, lots, streets, and public grounds by Birchard was unauthorized by the act of 1819, under which alone he proceeded or could have proceeded. The point made is that upon the Secretary of War was conferred the power to dispose of military sites found to be useless, and that such power could not be delegated to or exercised by an agent, although specially appointed by him for that purpose. In this view the court does not concur. The direction in the act was that the Secretary "cause to be sold" such military sites as were useless, language implying that he might discharge the duty imposed by Congress through the agency of some one representing him. It certainly could not have been expected that he would visit Chicago and personally superintend the sale. The plat shows upon its face and the United States admits in their information that Birchard acted in the premises for the Secretary of War and only as his agent. It further appears that he acted under a power of attorney executed under the direction of the President.

Opinion, filed September 24, 1888.

But it is contended that the power to cause these lands to be sold did not authorize the Secretary to dedicate a part of it to the public as streets and public grounds, and in this connection the district attorney maintains that the subdivision and platting by Birchard was not in conformity with the Illinois statute of February 27, 1833, for the recording of town plats. By the 5th section of that act the plat or map when made out and certified, acknowledged, and recorded, as required by the statute, was to be deemed, as to every donation or grant to the public therein specified, a sufficient conveyance to vest in the city the fee simple of the lands so designated, and operated as a general warranty. It also declared that "the land intended to be for streets, alleys, ways commons, or other public uses in any town or city or addition thereto shall be held in the corporate name thereof in trust to and for the uses and purposes set forth and expressed or intended." It is contended that the dedication of the streets and the public grounds south of Randolph street on

Opinion, filed September 24, 1888.

the lake shore did not conform to the statute, and was, at most, a dedication at common law; in which event, it is insisted, the fee to the streets and public grounds remains in the United States, notwithstanding the title must be held subject to the public uses by the platting and by the subsequent sales of lots with reference thereto.

It seems to the court clear that the power given to the Secretary to sell, no particular mode for selling being prescribed, carried with it, by necessary implication, authority to adopt any mode that was not unreasonable, in view of the object to be accomplished, and that was customary in the case of lands within the limits of or near to a town or city. If a subdivision, in the mode ordinarily adopted in the locality, of a large tract so situated into blocks, lots, streets, and public grounds was likely to be beneficial to the Government it was the duty of the Secretary to adopt that mode of selling.

196 If the subdivision and platting by Birchard was in conformity to the local statute in all material respects, then no conveyance by the United States of the legal title to the streets and public grounds was necessary. If it did not conform to the local law, and if the dedication of the streets and public grounds shown on the map of Fort Dearborn addition is to be deemed only valid as a dedication at common law, it would not follow that the United States can have a standing in court in respect to such streets and public grounds. The argument by the district attorney upon this point proceeds upon the ground that the General Government, after abandoning Fort Dearborn as a military site and after having sold the whole of that reservation except the parts reserved for streets and public grounds, had the capacity to hold the title to such streets and public grounds in trust for the public uses affixed to it. This position cannot be maintained. The United States took the right, title, and claim as well of soil as of jurisdiction which the Commonwealth of Virginia had in the northwest territory for the purposes only of temporary government and in trust for the performance of the stipulations and conditions imposed by the deed of cession. It was accepted as a common fund for the use and benefit of all the States, Virginia included. One of those conditions was that the territory so ceded should be laid out and formed into States, having the same rights of

Opinion, filed September 24, 1888.

sovereignty, freedom, and independence as the other States. Consequently when Illinois was admitted into the Union, "upon the same footing with the original States in all respects whatever," she succeeded to all the rights of sovereignty, jurisdiction, and eminent domain which Virginia possessed at the date of the cession "except so far as this right was diminished by the public lands remaining in the possession and under the control of the United States for the temporary purposes provided for in the deed of cession and of the legislative acts connected with it. Nothing remained to the United States, according to the terms of the agreement, but the public lands; and if the express stipulation had been inserted in the agreement granting the municipal right of sovereignty and eminent domain to the United States such stipulation would have been void and inoperative, because the United States have no constitutional capacity to exercise municipal jurisdiction, sovereignty, or eminent domain within the limits of a State except in the case in which it is expressly granted" (*Pollard's Lessee v. Hogan*, 3 How., 212, 223; *New Orleans v. United States*, 10 Pet., 662) or where it is necessary to the enjoyment of the powers conferred by the Constitution upon the General Government. *Kohl v. United States*, 91 U. S., 367, 372; *U. S. v. Fox*, 94 id., 320; *U. S. v. Jones*, 109 id., 513, 519. See also *Van Brocklin v. State of Tennessee*, 117 U. S., 151, 167, '8. When, therefore, Fort Dearborn reservation was subdivided into lots and they were sold, with reference to the map or plat of such subdivision, and it was no longer used as a military site or for any purpose connected with the execution of the powers of the General Government, all the lands embraced within its limits ceased to be a part of the national domain; the title to the specific lots passed to those who purchased them, while jurisdiction over the streets and open grounds dedicated to public use passed to the United States, the title to and immediate possession and control of such streets and grounds vesting in the local government—that is, in the municipal corporation of Chicago as a public agency of the State—for the purposes for which such dedication was made.

Touching the action of the Secretary of War and of his agent Birchard, it may also be said that its validity was impliedly recognized in the case, already referred to, of *United States v. Chicago*. The question there was, as we have seen, whether the city had the right to open streets designated on

Opinion, filed September 24, 1888.

the Birchard plat through that part of Fort Dearborn reservation which had not then been sold and was still used by the General Government as a military site. If the Birchard subdivision was invalid upon the ground that the Secretary could not invest him with power to do what he did, it would have been a ready answer in that case to the city's claim of authority to open Michigan avenue through Fort Dearborn reservation to the river to say that Birchard's subdivision and platting, upon which the city relied, did not bind the United States. On the contrary, the decision proceeded upon the ground that the subdivision and platting was legal, although not done under the personal supervision of the Secretary of War, and that the right of the city to open Michigan avenue, as marked on the Birchard map, through that part of the reservation not then sold would not come into existence until the occupancy of the United States ceased.

Whatever doubt may remain upon this point is removed by the act passed by Congress August 1, 1854, for the relief of Jean Baptiste Beaubien, by which the Commissioner of the General Land Office was authorized to issue to him a patent or patents for certain specified "lots as described and numbered on the survey and plat of the Fort Dearborn addition to Chicago, in the State of Illinois, made under the order of the Secretary of War, and now on file in the War Office." This statute is so far a recognition or ratification of the Birchard subdivision and of the acts of the Secretary of War as to preclude the United States and all others from making any question as to his power to make sale of Fort Dearborn reservation through the agency of Birchard or as to the authority of the agent to subdivide these lands into blocks, lots, streets, and public grounds.

What has been said is sufficient to show that the United States have long since parted with all jurisdiction over or title to the lands embraced within that reservation, and that the Illinois Central Railroad Company, shortly after the location of its road within the corporate limits of Chicago, acquired a title in fee to all of the water lots on the lake shore within the Fort Dearborn addition north of Randolph street.

What rights did the railroads have in virtue of such ownership? There can be no doubt that upon her admission into

the Union the State of Illinois became the owner of and acquired jurisdiction over all the lands within her boundaries covered by the waters of Lake Michigan, subject only to such supervision and control of the use of such waters as might result from the exercise by Congress of its power to regulate commerce with foreign nations and among the several States. *Pollard's Lessee v. Hogan*, 3 How., 212; 108 *Martin v. Waddell*, 16 Pet., 367; *Den v. Jersey Co.*, 15 How., 426; *Mumford v. Wardell*, 6 Wall., 436; *Weber v. Harbor Com'rs*, 18 id., 57; *County of St. Clair v. Livingston*, 23 Wall., 68; *Barney v. Keokuk*, 94 U. S., 339; *Van Brocklin v. State of Tennessee*, 118 id., 151, 167, '8. Upon this ground both the State and the railroad company rest their respective claims. But it is insisted, and we think rightly, that in the absence of any legislative or governmental direction as to the manner of the occupancy of the bed of the lake within the State the railroad company, as the riparian owner of the water lots north of Randolph street, had the right, in virtue of such ownership and as part of its purchase of such lots, to connect the shore line by artificial constructions with outside waters that were navigable in fact, although the exercise of that right is at all times subject to such regulations—at least those not amounting to prohibition—as the State may establish. These principles find support in numerous cases. *Dutton v. Strong*, 1 Black, 24; *Railroad Co. v. Schurmier*, 7 Wall., 272; *Yates v. Milwaukee*, 10 id., 497; *Weber v. Harbor Com'rs*, 18 Wall., 57; *Atlee v. Packet Co.*, 21 Wall., 389; *Delaplaine v. C. & N. W. R'y Co.*, 42 Wis., 214; 2 *Dillon's Mun. Corp.*, § 70 to 77. In *Yates v. Milwaukee* one of the questions was as to the rights of riparian owners of lots on Milwaukee river, near Lake Michigan, within the city of Milwaukee, with respect to wharves, piers, and other structures affecting the navigation of that river. The court said: "But, whether the title of the owner of such a lot extends beyond the dry land or not, he is certainly entitled to the rights of a riparian proprietor whose land is bounded by a navigable stream; and among those rights are access to the navigable part of the river from the front of his lot, the right to make a landing, wharf, or pier for his own use or for the use of the public, subject to such general rules and regulations as the legislature may see proper to interpose for the protection of the rights of the public, whatever those may be." Again: "This riparian right is property and is valuable, and, though it must be enjoyed in

Opinion, filed September 24, 1888.

Opinion, filed September 24, 1888.

due subjection to the rights of the public, it cannot be arbitrarily or capriciously destroyed or impaired. It is a right of which, when once vested, the owner can only be deprived in accordance with established law and, if necessary that it be taken for the public good, upon due compensation." It is difficult to perceive any reasons why these doctrines are not applicable to the great lakes of our country.

It was in the exercise of these riparian rights and with the consent of the city that the railroad company, after the location of its road and prior to 1867, pushed its works into the shallow water east of the shore line, north of Randolph street, until it reached the exterior line specified in the third section of the ordinance of 1852. Besides, the State, which from the time of her admission into the Union owned the bed of the lake thus occupied and could lawfully permit it to be occupied for purposes not inconsistent with the public rights of navigation, had expressly authorized the railroad company to enter upon, take possession of, and use any lands, waters, or materials belonging to her for the location of its depots, station grounds, turnouts, engine-houses, shops, and other buildings that were necessary "for the construction, preserving, and complete operation of said road," and that did not interrupt its navigation. It is true that this power, in respect to lands, waters, and materials belonging to the State within the corporate limits of a city, could not have been exerted by the company, under its charter, unless such city, by its common council, consented to the location of the road within its limits; but when such consent was given by the city of Chicago upon the conditions specified in the ordinance of 1852—conditions which it could lawfully impose—the right of the railroad company, so far as the State and city were concerned, to fill the lake to the extent prescribed by that ordinance and to use the ground thereby made was placed beyond question.

As to the structures erected by the company east of the exterior line designated by the ordinance of 1852, those built in 1867 may be justified, apart from the confirmatory clauses of the act of 1869, under the power expressly given to enter upon, take possession of, and use (provided navigation was not thereby interrupted) any lands or waters of the State that were necessary for the complete operation of the road

for the purposes designated in the charter of the company; and, as to the improvements made and structures built in 1873, 1880, 1881, north of Randolph street, they may be justified upon the same ground and upon the further ground that they were recognized and permitted, if not directly approved, by the proper authorities of the United States charged with the duty, by acts of Congress, of establishing an outer harbor of the city. So far as the United States are concerned, the court cannot regard these structures or any of them as interfering in any degree with the plans adopted or in contemplation by the General Government in reference to the harbor of Chicago. *Wisconsin v. Duluth*, 96 U. S., 379; *South Carolina v. Georgia*, 93 U. S., 4.

Opinion, filed September 24, 1888.

We would not be understood as saying that the State is concluded by the mere failure of the proper officers of the United States at the time to forbid the erection of these structures by the company; nor does the court intend to question the power of the State, by legislation, to prescribe the lines beyond which piers, docks, wharves, and other structures—other than those erected under the authority, express or implied, of the General Government—may not be built by riparian owners in the waters of the harbor that are navigable in fact. All that we intend now to decide is that, under the showing made, no basis exists for a decree declaring to be illegal the structures heretofore erected by the company east of the exterior line fixed by the ordinance of 1852, such structures appearing, under the evidence, to have been required by the growing business of the company, and, therefore, necessary for the "complete operation of the road," and it not appearing that such use of the waters of the lake interrupts navigation or materially obstructs the use of the harbor by those engaged in commerce or interferes with the plans devised by the United States for the improvement of that harbor. Whether a structure interrupts navigation—that is, interferes with the public rights of navigation—must depend upon the circumstances of each case. A structure might interrupt the navigation of a river, while one of like character erected in a great lake would not, in any just sense, impair the public right of navigation.

In respect to the company's right of way from Randolph street to the north line of block 23, the triangular pieces of ground south of Randolph street, and the structures erected

Opinion, filed September 24, 1888.

by the company south of Park Row but little need be said, in view of the conclusions already announced by the court.

The right of way was located in the open waters of the lake. The State consented, in the charter of the company, that the bed of the lake might be used by the company for a right of way, provided the city assented to the location of the tracks within its limits. The city gave its consent by the ordinance of 1852. Nothing more is requisite to show that the tracks of the company were legally located on the line designated for a right of way. The use of such ground in perpetuity, as a right of way simply, does not violate any right of the State, of the city, or of the United States. Upon the same grounds—the power given to the company in its charter to enter upon and use any land or waters belonging to the State for a right of way of a prescribed width and for the location of depots and for the purpose of constructing station grounds, turnouts, buildings, &c., necessary to the complete operation of its road, and the consent of the city as manifested in the ordinances of 1855 and 1856—the occupancy of the two triangular pieces of ground south of Randolph street for the purposes of a right of way must be sustained as legal. It would be a waste of time to set out the evidence showing that these two pieces of ground are essential to the operation of the road. Without them, as the ordinances of 1855 and 1856 upon their face indicate, the trains of the company could not conveniently approach its passenger depot, freight yards, and piers.

What has been said upon this branch of the case is decisive of the question before the court in respect to the structures erected by the railroad company south of Park Row and north of Sixteenth street. The company is shown to be the owner of all of the water lots in front of which these structures have been made. The breakwater there constructed was, according to the evidence, necessary to protect the railroad from the waters of the lake, the old breakwater having become insufficient under the ordinance of 1852, which, it must be remembered, required the shore to be protected by a continuous stone wall or structure of stone masonry, pier-work, or other material, outside of the track of the road, as might be "expedient" and as would be of the strength and magnitude requisite to protect the entire front of the city between the north line of Randolph street and its southern

Opinion, filed September 24, 1888.

boundary against further damage from the action of the waters of the lake. The part of the structure to be erected south of Lake Park was required by the ordinance to be commenced and prosecuted with all reasonable dispatch after the acceptance of the ordinance. While the new breakwater is farther from the shore than the old one, it does not appear

to materially obstruct the use of the navigable waters by the public. As to the large pier at the foot of Thirteenth street, it does not interfere with the public right of navigation. It is wider than was contemplated by the company at the time the plan therefor was submitted to the War Department; but such increase of width does not seem to be a matter of any consequence. According to the evidence none of the structures south of Park row interfere with the public use of the waters of the lake for purposes of commerce and navigation. Their erection may fairly be referred to the riparian ownership of the company and to its charter right to occupy and use the land and waters of the State for the purposes defined in its charter, provided only navigation is not interrupted; and, as their erection was not forbidden by regulations established under the authority of any statute, no ground is shown for the interference of the court.

Whether the railroad company in its erection of wharves, docks, piers, and other structures has not gone as far as it may go without interrupting the navigation of the lake or whether it could lawfully erect other structures on the lake without authority from the legislature of the State are questions which the court is not now required to determine.

The questions next to be examined relate to the subdivision in 1836 of fractional section 15 by the canal commissioners. We have seen that the canal commissioners had express legislative authority to make the subdivision and to sell and convey the lots embraced in it. It was made in conformity, in all material respects, with the Illinois statute of 1833. That is substantially conceded on all hands. As the plat or map of the subdivision was made out, certified, acknowledged, and recorded as required by that act, the fee simple to the streets, alleys, ways, commons, or other public grounds vested, by force of the statute and without a formal conveyance, in the town of Chicago in trust for the public uses affixed to them. § 5. *Canal Trustees v. Havens*, 11

Opinion, filed September 24, 1888.

Ill., 556; Gebhart v. Reeves, 75 id., 304; City of Chicago v. Rumsey, 87 id., 354; Zinc Co. v. City of La Salle, 117 id., 416. And to the estate, real and personal, vested in or belonging to or held in trust by the trustees of the town the city of Chicago succeeded under the act of March 4, 1837. So that when the lake-front act of 1869 was passed the fee was in the city of Chicago, subject to the public uses indicated, of all the then open ground south of the middle line of Madison street and north of Park row and east of the west line of Michigan avenue.

And so, also, is the fee in the city of the made or reclaimed ground between Randolph street and Park row, including the ground upon which rest the tracks and breakwater constructed by the railroad company south of Randolph street.

The grant to the city of power to establish "wharves and slips at the ends of the streets" was in aid of commerce and navigation, and was, by necessary implication, a grant of the lands upon which such wharves and slips might be established, such grant taking effect when structures of that kind were erected; Williams v. Mayor, &c., 7 Centr. Rep., 301; and it necessarily implied authority to fill in the lake for the purpose of such improvements, at least to the point of navigability. If the city had, before the passage of the ordinance of 1852, exerted the power thus conferred it certainly would have become the owner of all the ground so reclaimed for the purposes of wharves and slips at the ends of streets; but the city also had the right as riparian owner—its ownership of the open ground east of Michigan avenue extending to the line of the water as it usually stood when free from disturbing causes (Seaman v. Smith, 24 Ill., 524)—to fill in the lake and erect walls to the extent necessary to protect its own and the property of its people from the violence of the waters of the lake—certainly if it did not thereby interfere with the public rights of navigation; but, if that were not so, the city was expressly given power by its charter to erect a breakwater or barrier for protection against encroachment by the waters of the lake. If it had itself erected a breakwater south of Randolph street, in front of fractional sections 10 and 15, on the precise line adopted by the railroad company under the ordinance of 1852 and filled in the space between the breakwater and the shore line it could not be doubted that it would have become the owner

Opinion, filed September 24, 1888.

of all the ground thus reclaimed and occupied; but, instead of doing that work itself, the city employed the railroad company to do it in consideration of the grant to that company of the privilege of entering the city and of laying its tracks in front of Lake park grounds and of the open grounds south of Randolph street. When the railroad company established its breakwater, as it agreed with the city to do, and filled in the space set apart for the right of way, and when the space between the shore line and the company's right of way was filled in by the city, we cannot see but that the latter, as the riparian owner of the land upon the shore line as it was before any of the filling was done, became also, with the consent of the State, the owner of the fee of all such reclaimed ground, including that occupied by the railroad tracks and the breakwater, such ownership being, however, subject to the use by the railroad company, according to the terms prescribed by the ordinance of 1852, in perpetuity as a right of way, of the ground upon which its tracks were laid.

This brings us to the consideration of numerous questions arising out of the lake-front act of 1869. If that act contained no other provisions than those relating to the express grant to the Illinois Central Railroad Company of the submerged lands described in section 3 the first and principal question to be determined would be as to the validity of the repealing act of 1873; but, as will be seen, the former act did something more than grant the right and title of the State in the submerged lands constituting the bed of the lake within certain limits. It confirmed by the third section certain rights which the railroad company had previously acquired in other lands. As, in our judgment, the repeal of 1873, for reasons to be hereafter stated, did not abrogate all the provisions of the act of 1869, and as the opinion of the court seems to be desired upon all the points raised as to the latter act, we must first consider whether it be true, as asserted, that the act of 1869 was inoperative for every purpose and as to all of its provisions. Indeed, it would, in our judgment, be premature, if not unseemly, to consider what was the scope or effect of the act of 1869 or inquire as to the validity of the act of 1873 without first examining the grounds upon which it is contended that the act of 1869 never became, as to any of its provisions, a law of the State.

Opinion, filed September 24, 1888.

The constitution of that State, adopted in 1848 and in force in 1869, contained these provisions:

"Each house shall keep a journal of its proceedings. The yeas and nays of the members on any question shall, at the desire of any two of them, be entered on the journals." Art. 3. § 13.

"Bills may originate in either house, but may be altered, amended, or rejected by the other; and on the final passage of all bills the vote shall be by ayes and noes and shall be entered on the journal; and no bill shall become a law without the concurrence of a majority of all the members in each house." *Ib.*, § 21.

"Every bill shall be read on three different days in each house, unless, in case of urgency, three-fourths of the house where such bill is so depending shall deem it expedient to dispense with this rule; and every bill having passed both houses shall be signed by the speakers of their respective houses; and no private or local law which may be passed by the General Assembly shall embrace more than one subject, and that shall be expressed in the title." *Ibid.*, § 23.

It is contended that the General Assembly, in passing the lake-front act, did not meet these requirements, and, consequently, that the act never became a law.

The claim is that the bill was not read on three different days in each house, and that its subject is not expressed in the title. The facts upon which this claim rests will now be stated:

On the 13th of January, 1869, a bill was introduced into the House entitled "An act to enable the city of Chicago to enlarge its harbor and to grant and to cede all the rights, title, and interest of the State in and to certain lands of the State lying on and adjacent to the shore of Lake Michigan on the eastern frontage of said city." This bill expresses a desire that the harbor be enlarged and commerce and navigation on the lake promoted by the construction of docks, piers, breakwaters, and other works according to such plans as might be made by the Secretary of War. To that

end it granted and ceded to the city all the right, title, and interest of the State in and to the submerged lands constituting the bottom of Lake Michigan, lying on the eastern front of the city, for the space of one league eastwardly from the shore line, such grant and cession being upon the express condition that the city should not, on any account, alien, sell, or convey the said lands, but hold the same in trust forever for the uses and purposes above stated, with the privilege, however, of leasing the same for a period not exceeding ninety-nine years at any one time upon the same terms as the school lands belonging to the city.

Opinion, filed September 24, 1888.

The bill also granted and ceded to the city all the right, title, and interest of the State in and to the lands and grounds between the east line of Michigan avenue and the track of the Illinois Central railroad, whether the same be submerged or not, constituting a part of sections 10 and 15, in township 39, range 14 east of the third principal meridian, or lying or being adjacent thereto on the east. This grant was subject to various conditions, among which were that the premises should not be conveyed or leased except upon the votes of three-fourths of the aldermen required to be elected, and that the city, at its election, might dedicate the whole or part of the premises for a public park.

On the day of its introduction this bill was read a first time and ordered to be read a second time. The same day "the rule was dispensed with," the bill read a second time and referred to a committee. On the 4th of February, 1869, the committee reported it back, with amendments, recommending its passage as amended. The house adopted other amendments, and on the 10th of February, 1869, the report, as amended by the house, was adopted. On the same day the bill was ordered to be engrossed for a third reading. It was read a third time, on the 20th of February, and passed. On the same day, immediately after its passage, it was ordered by the house that the title be "A bill for 'An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan on the eastern frontage of the City of Chicago.'"

The fact of the passage of the bill in the house was communicated to the senate on the day of its passage, and two

Opinion, filed September 24, 1888.

days thereafter it was taken up, read a first time, "ordered to a second reading," and laid on the table to be printed. On the first of March, 1869, the committee to which the bill had been previously referred reported it back, with a recommendation in favor of its passage. The report "was concurred in and the bill ordered to a third reading." The bill was read a third time and passed, with the foregoing title, on the 8th of March, 1869. It was vetoed by the governor and on the 16th of April, 1869, passed each body, his objections to the contrary notwithstanding.

It will be seen from this history of the act as it went through the legislature that nothing appears in the senate journal to show that the bill was in fact read a second time in that body. Is it essential to its validity that it should appear in the journal that the bill was "read on three different days in each house"? Does the mere silence of the senate journal as to whether the bill was, in fact, read a second time in that body on some one of three different days raise a conclusive presumption that it was not so read?

The earliest case in the supreme court of Illinois upon this general subject to which our attention has been called is *Spangler v. Jacoby*, 14 Ill., 207. The court there said: "In our opinion it is clearly competent to show from the journals of either branch of the legislature that a particular act was not passed in the mode prescribed by the constitution and thus defeat its operation. The constitution requires each house to keep a journal, and declared that certain facts made essential to the passage of a law shall be stated therein. If those facts are not set forth the conclusion is that they did not transpire. The journal is made up under the immediate direction of the house and is presumed to contain a full and complete history of its proceedings. If a certain act receive the constitutional assent of the body it will so appear on the face of the journal, and when a contest arises as to whether an act was thus passed the journal may be appealed to to settle it. It is the evidence of the action of the house and by it the act must stand or fall. It certainly was not the intention of the framers of the constitution that the signatures of the speakers and executive should furnish conclusive evidence of the passage of a law. The presumption, indeed, is that an act thus verified became a law pursuant to the requirements of the constitution; but that presumption

may be overthrown. If the journal is lost or destroyed this presumption will sustain the law, for it will be contended that the proper entry was made in the journal; but when the journal is in existence and it fails to show that the act was passed in the mode prescribed by the constitution the presumption is overcome and the act must fall."

Opinion, filed September 24, 1888.

This decision is cited by counsel to support the proposition that the mere silence of the journal as to whether a bill was or not read on three different days, the journal not being lost or destroyed, is itself fatal to the validity of the act; but we are not satisfied that the court intended to express an opinion upon that precise point. Although it did not appear in that case that the bill was read the third time before it went to the senate, or that the ayes and noes were called, no special comment was made by the court upon the silence of the journal as to the bill not being read the third time. Plainly, its language had reference to the fact that the journal did not show the passage of the bill by ayes and noes. It was with reference to that fact that the language above quoted was used.

In *Turley v. County of Logan*, 17 Ill., 152, the court said that "the journals should show the readings and the passage of the law by a constitutional vote," but nothing was said as to what would be the result where the journal did not show that each of the required readings was had. The general language above quoted seems to have been unnecessary to the decision, for the court finally sustained the validity of the act there in question upon the ground that the same legislature, in extra session, caused its journals to be amended so as to show what, according to the minutes of the clerk of the house, was the fact that the bill had been read the required number of times.

That we do not misinterpret these decisions is shown in *Supervisors of Schuyler v. The People*, 25 Ill., 181, where one of the grounds of objection to an act was that the Senate Journal did not show that the bill was read three times before it was put on its final passage. The court said: "The constitution does require that every bill shall be read three times in each branch of the General Assembly before it shall be passed into a law, but the constitution does not say that these several readings shall be entered on the journals. Some

Opinion, filed September 24, 1888.

acts performed in the passage of laws are required by the constitution to be entered on the journals in order to make them valid, and among these are the entries 206 of the ayes and nays on the final passage of every bill, and we held in the case of *Spangler v. Jacoby*, 14 Ill., 297, that where the journal did not show this the act never became a law; but where the constitution is silent as to whether a particular act which is required to be performed shall be entered on the journals, it is then left to the discretion of either house to enter it or not, and the silence of the journal on the subject ought not to be held to afford evidence that the act was not done. In such a case we must presume it was done, unless the journal affirmatively shows that it was not done." This decision was expressly reaffirmed in *Wabash R. R. Co. v. Hughes*, 38 Ill., 186. Nothing to the contrary was decided in *The People ex rel. Barnes v. Starne*, 35 Ill., 141, or in *Ryan v. Lynch*, 68 id., 161, which is relied upon as modifying or overruling *Supervisors of Schuyler County v. The People, &c.* The case in 35th Ill. recognizes the doctrine of the Schuyler county case, and goes upon the ground that the ayes and noes were not called and spread upon the journals of the house on the passage of the bill. In *Ryan v. Lynch* it appeared from the journal that the bill was read twice in the senate, but the journal was silent as to a third reading, and did not show any call of the ayes and noes on the final passage of the bill. The decision was that as the proceedings in the senate, certified by the secretary of state, were competent proof of the facts therein stated, the failure of the journal to show a call of the ayes and noes was fatal to the bill. Nothing was said as to the effect to be given to the mere silence of the Senate Journal as to the third reading of the bill. Indeed, we do not find that any of the numerous decisions of the State court relating to the passage of bills by the legislature have modified or overruled the doctrine announced in *Supervisors of Schuyler County v. The People*.

With that doctrine we are entirely satisfied. It is in harmony with the adjudications in many of the States whose constitutions have provisions similar to those in the constitution of Illinois which we have been considering. *Miller, &c., v. The State*, 3 Ohio St., 475; *McCulloch v. The State*, 11 Ind., 424; *State v. City of Hastings*, 24 Minn., 78; *English v. Oliver*, 28 Ark., 317; *Chicot Co. v. Davies*, 40 id., 200;

State v. Francis, 26 Kan., 724; In re Vanderberg, 28 id., 243;
The State v. Mead, 71 Mo., 268.

Opinion, filed Sep-
tember 24, 1888.

We therefore hold that the mere silence of the Senate Journal as to whether the act of 1869 was read the second time in that body does not justify us in holding it to be invalid.

The next inquiry under this head is whether the act of 1869 is a private or local law; if so, whether the title sufficiently expresses the subject thereof. In entering upon this inquiry we lay out of view the 8th section of the act declaring it to be a public act; for the mere declaration of the legislature that it was a public act would not make it such or preclude the determination of its character by the courts. *B. and I. R. R. Co. v. Gregory*, 15 Ill., 28. On behalf of the railroad company it is contended that the word "private" is used as contradistinguished from "public" and "local" as contradistinguished from "general"; that the act in question is both public and general, because it concerns the interests of the public at large, contains a grant of the public domain of the State, provides for a revenue to be applied for State purposes only, and has in view the improvement of a harbor, in which object as well the people of Chicago as of the entire country and of foreign countries are interested. We recognize the force of this argument; but if it be sound, it would follow that every act, or at least the great body of acts, referring in any way to municipal corporations and to railroads constructed and maintained under legislative authority must be taken out of the prohibition against the passage of a private or local law whose subject is not expressed by its title, for all such acts may be said to relate to agencies employed by the State for the accomplishment of public purposes and in which in some sense the people of the whole State are interested. Some light, we think, is thrown upon this question by the constitution of 1870, which does not contain any provision requiring the subject of a private or local law to be expressed in its title, but instead thereof prohibits the General Assembly from passing "local or special laws" in certain enumerated cases, among which are laying out, opening, altering, and working roads or highways; vacating roads, town plats, streets, alleys, and public grounds; locating or changing county-seats; regulat

Opinion, filed September 24, 1888.

ing county and township affairs, regulating the practice in courts of justice, regulating the jurisdiction and duties of justices of the peace, police magistrates, and constables; providing for changes of venue in civil and criminal cases; incorporating cities, towns, or villages; providing for the management of common schools, the protection of game or fish, and chartering or licensing ferries or toll-bridges. The word "local," as used in the constitution of 1870, evidently means what it did in that of 1848; and we are of opinion that laws relating to any of these subjects would have been deemed "local" within the meaning of the constitution of 1848, when by their terms they were to have only a local territorial operation. In many of the states the constitutional requirement is that every law, whether private or public, local or general, shall contain but one subject, which shall be expressed in the title. But the Illinois constitution of 1848 had in view only to guard against enactments of a private or local character, the subject whereof was not expressed in the title. If it were conceded in this case that the act of 1869 must by reason of some of its provisions be deemed a public act within the rule requiring courts to take judicial notice of its contents (*Benkert v. Jansen*, 94 Ill., 290), the result would not follow for which counsel of the company contend, for the constitutional prohibition equally applies to legislation which is local in its character. In other words, an act may be of a public nature and yet by its terms be local in its operation and immediate results. This act does not relate to the entire line of the railroad company within the State nor to all the municipal corporations existing under her authority, but, among other things, to specified property in a particular city. It contains a provision which concerned the people within that municipality far more than the people of any other locality in the State. Obviously the intention of the framers of the constitution was to protect local communities
208 against enactments of the subjects whereof they had no previous notice from the titles used by the promoters of such legislation. An act is local which specially concerns the property and rights of a portion of the people of the State, although its subject may be of public nature and although in its general operation the people of the entire State may in some sense have an interest. It is none the less a local act within the meaning of the constitution because some of its provisions, if embodied in a separate statute, might have made that statute a general law. As we shall see further along,

the city of Chicago had, when the act of 1869 was passed, certain property rights in lands within its corporate limits. In that property no other municipal corporation of the State had any direct interest. Of some of that property the act required the city to make sale to particular corporations at a named price. If such an act be not local, it is difficult to conceive of one that would be of that character within the meaning of the constitution.

Opinion, filed September 24, 1888.

The rules to guide us in solving the question whether the subject of an act is sufficiently expressed seem to be well established by numerous decisions of the supreme court of Illinois. In *Belleville & Illinoistown R. R. Co. v. Gregory*, 15 Ill., 20, it was said that the provision of the constitution must receive "a fair and reasonable construction, one which will repress the evil designed to be guarded against, but which at the same time will not render it oppressive or impracticable;" in *City of Ottawa v. The People*, 48 Ill., 233, that while the subject must be expressed, "the adjuncts to that subject, or the *modus operandi* need not be;" in *Binz v. Weber*, 81 Ill., 288, that the question whether an act contains more than one subject is to be determined by the controlling purpose of the law, not by the various provisions made for carrying that purpose into effect; in *Johnson v. People*, 83 Ill., 431, that the constitution "does not require that the subject of the bill must be specifically and exactly expressed in the bill; hence we conclude that any expression in the title which calls attention to the subject of a bill, although in general terms, all that is required;" in *Blake v. The People*, 109 Ill., 504, that the clause of the constitution under consideration has uniformly been "construed liberally in favor of the validity of enactments, and the fact that many things of a diverse nature are authorized or required to be done is unimportant, provided the doing of them may fairly be regarded as in furtherance of the general subject of the enactment;" and in *Mix v. Illinois Central R. R. Co.*, 116 Ill., 508, that "it is sufficient that this act is fairly covered by its title. The constitution does not require that all the legal effects of an act, such as repeals by implication, should be expressly stated in the title. Such a thing would be utterly impracticable."

The general rule is illustrated in numerous cases in the State court, to some of which it will be well to refer. In

Opinion, filed September 24, 1888.

Belleville and I. R. R. Co., 15 Ill., 20, "An act to incorporate the Belleville and Illinoistown Railroad Company" was held to contain but one subject, although one of its provisions conferred upon a named city and county authority to subscribe to the stock of the company, and although another section authorized the company to unite with any other railroad then or thereafter to be constructed in the State. So was "An act to incorporate the Firemen's Benevolent Association, and for other purposes," which contained a provision requiring the agents of all foreign insurance companies doing business in Chicago to pay to the association two per cent on the amount of all premiums received by such agents. *Firemen's Benev. Ass. v. Lounsbury*, 21 Ill., 511. In *O'Leary v. County of Cook*, 28 Ill., 534, "An act to amend an act entitled 'An act to incorporate the Northwestern University,'" which contained a prohibition upon the sale of ardent spirits within a distance of four miles of the university, was sustained, the court observing that "it was not the purpose of the constitution to deprive the legislature of any power necessary to enable them to make private legislation ample and abundant to accomplish its legitimate purpose, but the object was to prevent them from covertly embracing several distinct and foreign subjects in one act." In *Neifing v. The Town of Pontiac*, 56 Ill., 172, "An act to extend the corporate powers of the town of Pontiac" was sustained as embracing one subject, although it contained provisions both extending and restricting such corporate powers. "An act to amend the charter of city of Chicago" was held, in *Prescott v. City of Chicago*, 60 Ill., 121, to sufficiently cover by its title provisions extending the limits of the city and providing for the improvement and regulation of certain parks. In *The People v. Hydraulic Co.*, 115 Ill., 281, an act passed in 1853 was sustained as embracing one subject, the title being "An act to amend an act incorporating the Hydraulic Company and the La Salle County Manufacturing Company of Ottawa, both incorporated under the general law approved February 10, 1849." The court said: "The subject of the act of 1853, therefore, was the amendment of the act of 1849, or of the act incorporating these two companies, and the additional powers conferred on the two companies were clearly germane to the amendment of the charter. It can hardly be that this objection is founded on the fact that the legislature has, by a single act, conferred certain powers and privileges on two dis-

inct corporate bodies. It would be just as reasonable to say that the legislature, by reason of the constitutional provision in question, could not make a joint grant to two separate persons, and no one, we presume, would contend that for a moment."

Opinion, filed September 21, 1888.

The decision of the Supreme Court of the United States, interpreting the constitution of Illinois and construing the constitutions of other States having provisions similar to those found in the constitution of Illinois of 1848, are to the same effect. *Woodson v. Murdock*, 22 Wall., 351, 273; *San Antonio v. Mehaffey*, 96 U. S., 315; *Unity v. Burrage*, 103 id., 447; *Louisiana v. Pillsbury*, 105 id., 278, 289; *Montclair v. Ramsdell*, 107 id., 147, 153, 155; *Jonesboro' City v. Cairo & St. Louis R. R. Co.*, 110 id., 192, 199, 200; *Otoe Co. v. Baldwin*, 111 id., 1; *Ashley School District v. Hall*, 113 id., 135; *Mahomet v. Quackenbush*, 117 id., 508; *Carter Co. v. Sinton*, 120 id., 517.

Applying these principles to the act of 1869 we are satisfied that it embraces one subject only, namely, the disposal of lands or grounds lying on and adjacent to the shore of Lake Michigan, on the east front of the city of Chicago. Every clause and section of the act relates to that general subject. The title gives notice that the act relates to that subject, and therefore was information to all that the act was to deal with it. What disposition was to be made of the lands and grounds referred to in the title appears from the body of the act.

It is insisted, however, that the effect of the act is, by implication, to enlarge the corporate powers of the Illinois Central Railroad Company by permitting it to become, for all practical purposes, a wharf or dock company. If this be true, as we think it is, it does not follow that the title fails to express the subject of the act. Whether the submerged lands and Lake park grounds were to be held, owned, or managed by individuals or by some municipal or railroad corporation are matters of detail which, according to the decisions of the State court, the legislature was not required to express in the title. It was only required to express the subject to which the act related. So far, then, as the act deals with the subject expressed in the title it is capable of

Opinion, filed September 24, 1888.

being enforced without violating the constitutional provision under consideration.

Some doubts arose on the argument as to whether the first part of section three and sections four, five, and six did not embrace subjects that were unexpressed in the title. The title refers "to submerged lands and Lake park grounds." The railroad company in 1869 occupied, used, and controlled grounds north of Randolph street, which never constituted part of Lake park grounds, nor were they at that time submerged lands; and the same observation may be made as to the "public grounds" on the shore east of Michigan avenue and between Madison and Randolph streets. Hence it was argued that the above sections embraced subjects—that is, lands not submerged nor part of Lake park grounds—which are unexpressed in the title. On the other hand, it may be fairly, and we think properly, contended that the general subject expressed in the title is lands or grounds "lying on and adjacent to the shore of the lake, on the eastern frontage of the city of Chicago;" that all the lands or grounds described in the body of the act, whether submerged or not, are covered by that description; that the legislature in referring to submerged lands may have intended to describe them as they were when fractional sections 10 and 15 were subdivided and platted, and that to limit the general description by a literal interpretation of the words "submerged lands and Lake park grounds" is inconsistent with the liberal construction which the supreme court of the State has always given to the constitutional provision in question.

What was said by the Supreme Court of the United States in *Montclair v. Ramsdell*, 107 U. S., 147, may be here repeated, namely, that "the objection should be grave and the conflict between the statute and the constitution palpable before the judiciary should disregard a legislative enactment upon the sole ground that it embraced more than one object; or, if but one object, that it was not sufficiently expressed by the title.

211 It is also contended that no act could, under the constitution, become a law unless it bore, during the whole period of its pendency in and passage through each branch of the legislature, an appropriate title—that is, a title which sufficiently expressed the subject of the act. It will be re-

membered that the bill, when first introduced, bore the title of "An act to enable the city of Chicago to enlarge its harbor and to grant and to cede all the rights, title, and interest of the state in and to certain lands lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of said city. According to the House Journal, the bill after the second reading was referred to a committee, which subsequently reported it back with an amendment which, in effect, was a substitute for the senate bill except the title. The substitute was adopted; the bill as amended was read a third time and passed, the present title being adopted after the passage of the bill in the house. If we do not misunderstand the point here made, it is that, even if the present title sufficiently expressed the subject of the bill as it finally passed both branches of the legislature, the title which the bill had at the time of its several readings in and passage by the house did not express the subject of the act as it finally passed over the veto of the governor. In support of this proposition we are referred to *Binz v. Weber*, 81 Ill., 288, in which the court said that, by giving effect to the constitutional provision under examination, "no portion of a bill not germane to its general object or not expressed in its general title when passed through the two houses can acquire the force of a law. Only the portions of a bill expressed in the title when passed are constitutionally adopted. This being so, it does not matter what title might be adopted after its passage to designate a law. The title adopted after the passage of a bill is no part of the law, nor does it enlarge, limit, or control the law. The title to a bill is an essential part of a bill, and under the constitution every bill must have a title, and such title must truly state the object of the bill. Under this constitutional requirement, then, we must look to the title of this bill as it passed each house, and not to the title of the act after its adoption, to learn what portion of its provisions are constitutional. By thus applying these provisions to the passage of a law we have no doubt we shall effectuate the intention of the framers of that instrument." In *Johnson v. The People*, 83 Ill., 431, the court said: "In the case of *Binz v. Weber*, 81 Ill., in passing upon a similar provision of the constitution of 1848 applicable to private laws, we said that the validity of an act must depend, under such a provision, upon the title of the bill as it passed both houses and not on the title of the law after its adoption. Is, then, the title by which the bill passed sufficient to sustain the law?"

Opinion, filed September 24, 1888.

Opinion, filed September 24, 1888.

Having already determined that the present title of the act—which was the title before the bill was sent from the house, as well as when it passed the senate—sufficiently expressed the subject thereof, it is only necessary, under the decision of the State court, to inquire whether the subject of the act was sufficiently expressed by its title at the time it passed the house. That there is some difference between the original and substituted title must be conceded; but that difference is not so marked as to justify the court in sustaining the point under examination. The general subject of each title is "certain lands lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago." The original title suggested the enlargement by the city of its harbor and the cession of the rights, title, and interest of the State in the lands referred to; but to whom such cession was to be made was not distinctly indicated. The idea conveyed was that the lands described were to be used so as to enable the city to enlarge its harbor. Turning to the body of the act as it passed the house, we find that the lands therein disposed of are lands embraced within the description in the original title, the rights, title, and interest of the State therein being granted and ceded. The only part of the original title which does not express anything to be found in the act are the words "to enable the city of Chicago to enlarge its harbor;" but that difference is immaterial, for everything in the act is sufficiently expressed in the remainder of the title as it passed the house before the present title was substituted—that is, by the words "to grant and to cede all the rights, title, and interest of the State in and to certain lands lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of said city." Had these words constituted the title of the act as finally passed we do not doubt it would have met the requirements of the constitution. If this be so the act did not fail to become a law merely because the original title contained superfluous words.

Another objection to the act of 1869, based upon the local law, rests upon sections 1 and 2 of article XI of the constitution of Illinois adopted in 1870, which provide: "Sec. 1. No corporation shall be created by special laws, or its charter extended, changed, or amended, except those for charitable, educational, penal, or reformatory purposes, which are to be and remain under the patronage and control of the State, but the General Assembly shall provide, by general laws, for the

organization of all corporations hereafter to be created. Sec. 2. All existing charters or grants of special or exclusive privileges under which organization shall not have taken place, or which shall not have been in operation within ten days from the time this constitution takes effect, shall thereafter have no validity or effect whatever." These sections of the constitution took effect August 8, 1870. It is contended that neither at that time nor within ten days thereafter was there a valid or binding acceptance by the railroad company of the provisions of the act of 1869; consequently, it is argued, the act fell so far as it gave the company the right to hold property which it was not previously entitled to hold for the purposes specified in its charter and so far as it enlarged its corporate powers.

Opinion, filed September 24, 1888.

The constitutional provisions just cited have no bearing upon the present case. The act of 1869 is not a "grant of special or exclusive privileges" within the meaning of those provisions. It is a grant of lands to a railroad corporation to be used part of them as passenger depot grounds and 213 part of them for the purpose of improving a harbor and thereby promoting commerce and navigation upon public navigable waters. That the act had the effect to increase the corporate powers of an existing corporation and enable it to engage in business not embraced in its original charter does not bring the act within the operation of section 2 of art. XI. Section 2 is to be interpreted in connection with section 1; and, so interpreted, it is clear that the framers of the constitution intended to strike down all corporations then existing which within ten days after that instrument took effect were still unorganized or were not in operation as corporations. There was no purpose to take away any additional special or exclusive privileges granted to corporations organized and in actual operation as was the Illinois Central Railroad Company at the time the constitution was submitted to the popular vote or to interfere with any grant of land made by the State before that date.

An argument much pressed in behalf of the State and the city is that a mere legislative grant of lands cannot be made effectual for any purpose, since section 25 of article IV of the constitution of 1848 "all grants and commissions shall be sealed with the great seal of the State, signed by the gov-

Opinion, filed September 24, 1888.

error or person administering the government, and countersigned by the secretary of state." The contention is that the issuing of a completed patent was necessary to vest the title, and whether it should issue even after the legislature had expressed the intention of parting with the State's title was under the constitution for the governor to determine, and that until that determination was evidenced by a grant signed by him or by the person administering the government and sealed with the great seal of the State no title passed.

A simple question arose in *Rutherford v. Greene's Heirs*, 2 Wheat., 196, 199. In 1870 the State of North Carolina passed an act reserving a certain tract of country for the officers and soldiers of the line of that State. In 1872 another act was passed for the relief of the officers and soldiers of the Continental line, the 10th section of which allotted and gave 25,000 acres of land to Major General Nathaniel Greene, his heirs and assigns, within the bounds reserved for the use of the army, to be laid off by commissioners, as a mark of the high sense which North Carolina entertained "of the extraordinary services of that brave and gallant officer." In opposition to the title of Greene's heirs it was contended that the legislative enactment was ineffectual as a grant under the provision of the constitution of that State, which declared "that there shall be a seal of this State, which shall be kept by the governor and used by him as occasion may require, and shall be called the great seal of the State of North Carolina, and be affixed to all grants and commissions." Chief Justice Marshall, speaking for the whole court, said: "This legislative act, it is said, cannot amount to a grant, since it wants a formality required by the constitution. This provision is so obviously intended for the completion and authentication of an instrument attesting a title previously created by law, which instrument is obviously the mere evidence of prior legal

appropriation and not the act of original appropriation
214 itself, that the court would certainly have thought it unnecessary to advert to it had not the argument been urged repeatedly and with much earnestness by counsel of the highest respectability." The court held that the act of the legislature vested a title in General Greene to 25,000 acres, and that the survey thereof, made pursuant to the statute, gave possession to that title and attached it to the land. This case was referred to with approval in *Fremont v United*

States, 17 How., 542, 559. We are of opinion that, whatever may be the scope of the provision of the State constitution declaring that all "grants" shall be sealed with the great seal of the State and signed by the governor or the person administering the government, it was not intended to withhold from the legislature the power of statute to pass a complete title to lands belonging to the State.

Opinion, filed September 24, 1888.

Other objections to the act of 1869, founded on specific provisions of the State constitution, are made. Some of them are not deemed of sufficient gravity to require special notice, while in respect to others the conclusion reached upon the points examined renders it unnecessary to consider them.

Proceeding, then, to the examination of questions involving the construction of the lake-front act of 1869 and the effect of the repealing act of 1873, we observe that the third section of the act of 1869 confirms "the right of the Illinois Central Railroad Company under the grant from the State in its charter * * * and under and by virtue of its appropriation, occupancy, use, and control and the riparian ownership incident to such grant, appropriation, occupancy, use, and control in and to the lands submerged or otherwise lying east of the said line running parallel with and 400 feet east of the west line of Michigan avenue in fractional sections 10 and 15." This confirmation covers all that was done by the railroad company prior to April 16, 1869, in the way of filling in the lake and constructing wharves, slips, piers, tracks, warehouses, &c., between Chicago river and the north line of Randolph street. It also covers the occupancy and use by it for way ground of the two triangular pieces of ground immediately south of Randolph street. We have already expressed the opinion that what was done in these respects by the railroad company was to be justified by its riparian ownership, by its charter, and by the city ordinances of 1855 and 1856. If, however, we should be in error in so holding, it is clear that its action in the particulars just stated was legalized by the confirmatory clause of section 3 of the act of 1869. If what was done by the railroad company prior to April 16, 1869, in the localities discussed in that clause had been done under the legislative authority previously conferred, the company would undoubtedly have acquired thereby property rights that could not have been taken from it except upon

Opinion, filed September 24, 1888.

compensation. But subsequent legislative ratification or confirmation of what was done is equivalent to original authority. *Grenada County Supervisors v. Brogden*, 112 U. S., 271; *Anderson v. Santa Anna*, 116 id., 364. This being so, it was beyond the power of the State, consistently with the constitution of Illinois or the Constitution of the United States, to revoke that confirmation, as was attempted to be done by the repealing act of 1873.

215 But the most important provision in the act of 1869 is the one granting, in fee, to the Illinois Central Railroad Company, its successors and assigns, all the right and title of the State in and to the submerged lands on the east front of the city of Chicago, constituting the bed of Lake Michigan, and lying east of the breakwater of the company for the distance of one mile and between the south line of the south pier (near Chicago river) extended eastwardly and a line extended eastward from the south line of lot 21, south of and near to the round-house and machine shops of said company. This and other grants to the Illinois Central Railroad Company in the act of 1869 were declared therein to be upon the express condition that the company shall "perpetually pay into the treasury of the State the per centum on the gross or total proceeds, receipts, or income derived from said road and branches stipulated in its charter, and also the per centum on the gross receipts of said company reserved in this act."

What was the effect of the repealing act of 1873 upon the grant of submerged lands?

It is contended by the railroad company that the repealing act of 1873 is inoperative and void, for the reason, among others, that its provisions are repugnant to that clause of the constitution of Illinois, in force at the time of the passage of the act of 1869, which provides that "no contract, obligation, or liability of the Illinois Central Railroad Company to pay any money into the State treasury, nor any lien of the State upon or right to tax property of said company, in accordance with the provisions of the charter of said company, approved February 10th, in the year of our Lord 1851, shall be released, suspended, modified, altered, remitted, or in any manner diminished or impaired by legislative or other authority." The repeal of the act of 1869 does not purport to re-

lease, suspend, modify, alter, remit, diminish, or impair any contract, obligation, or liability of the company or any lien of the State or any right of the State to tax the property arising under the company's charter of 1851. Consequently, the repeal is not in violation of the constitutional provision referred to.

Opinion, filed September 24, 1888.

The company also insists that it was beyond the power of the legislature to withdraw this grant, especially after the company's acceptance of the act of 1869 and after it had incurred, as it claims to have done, large expenditures upon the faith that the provisions of said act would be respected by the State and the city. Upon a careful consideration of all that has been said upon this important and difficult question, the court is of the opinion that, as respects the submerged lands constituting the bed of the lake and expressly granted by the third section of the act of 1869, the repealing act of 1873 did not infringe any legal right of the company and was a valid exercise of legislative power.

It is clear that in respect to these submerged lands the act of 1869 imposed upon the company no duty or obligation that was enforceable by legal proceedings. The act was passed before the General Government had, in the interest of commerce, adopted any plan for an outer harbor at the city 216 of Chicago; and we agree with one of the learned counsel of the railroad company when he says that, looking at the terms of the grant, the nature and situation of the land granted, and all the attendant circumstances of which the court may properly take cognizance, it is manifest that the intention of the legislature was to enable that company, in the interest of commerce, and therefore for public purposes, to construct an outer harbor at Chicago and to invest it with power to build, maintain, and lease wharves and docks for the use of shipping. The ownership of the soil under the lake would have been of no practical value to the railroad company for any purpose except those just stated. A trust was engrafted upon the fee in the submerged lands for the benefit of the public and not for the aggrandizement of the railroad company. This interpretation of the act is fortified by the prohibition upon the company's granting, selling, or conveying the fee—a restriction upon its power of dealing with these lands inconsistent with an absolute title thereto.

Opinion, filed September 24, 1888.

It is further sustained by the declaration that nothing in the act should authorize obstructions to the harbor or the impairment of the public right of navigation and by the reservation of the right of the General Assembly to regulate "the rates of wharfage and dockage to be charged in said harbor." In short, the legislature intended by the act of 1869 to secure such improvement of the harbor of Chicago as was demanded by the large commerce of the lake, and to that end proposed to place certain resources of the State at the command of the railroad company as an agency of the State, with such an enlargement of its powers and privileges as would enable it to accomplish the public objects in view. Whether the railroad company in due time and in a legal mode accepted the provisions of the statute and whether any formal acceptance of those provisions upon its part was necessary are questions elaborately discussed at the bar. Without determining either of those questions, we assume, for the purpose of this case, that such an acceptance was made in proper form and so as to invest the company with the power, not given in its original charter, of erecting and maintaining wharves, docks, and piers in the interest of commerce and beyond the necessities or legitimate purposes of its own business as a railroad corporation. We are nevertheless unable to perceive why it was not competent for the State, by subsequent legislation repealing the act of 1869, to withdraw these additional powers of the company, thereby restricting it to the business for which it was incorporated, and to resume control of the resources and property which it had placed at the command of the company for the improvement of the harbor. When the act of 1869 was passed it was deemed best for the public interests that the improvement of that harbor should be effected by the instrumentality of a railroad corporation interested to some extent in the accomplishment of that result. But if the State subsequently determined, upon considerations of public policy, that this great work should not be entrusted to any railroad corporation, and that a corporation should not be the owner of even a qualified fee in the soil under the navigable waters of the harbor, no provision
217 of the national or State constitution forbade the General Assembly of Illinois from giving effect, by legislation, to this change of policy. It cannot be claimed that the repeal of the act of 1869 took from the company a single right conferred upon it by its original charter. That act only granted additional powers and privileges for which the rail-

road company paid nothing, although in consideration of the grant of such additional powers and privileges it agreed to pay a certain per centum of the gross proceeds, receipts, and incomes which it might derive either from the lands granted by the act or from any improvements erected thereon. But it was not absolutely bound, by anything contained in the act, to make use of the submerged lands for the purposes contemplated by the legislature—certainly not within any given time—and could not have been called upon to pay such per centum until after the lands were used and improved and income derived therefrom. The repeal of the act relieved the corporation from any obligation to pay the per centum referred to, because it had the effect to take from it the property from which alone the contemplated income could be derived, so that the effect of the act of 1873 was only to remit the railroad company to the exercise of the powers, privileges, and franchises granted in its original charter, and withdraw from it the additional powers given by the act of 1869 for the accomplishment of certain public objects.

Opinion, filed
September 24, 1873

The only suggestion of weight against the validity of the repealing act of 1873 is to the effect that after the passage of the act of 1869 and before its repeal the railroad company had made extensive and costly improvements upon the faith of the grant of the submerged lands, and that the repeal operates to take from it property interests without compensation being made. If the repealing act were attended by any such result, the court would not hesitate to hold that the company could not be deprived of the use of any structures erected or improvements made upon these lands on the faith of the act of 1869, except upon compensation being made to it. But, in fact, no such case is presented in respect to the submerged lands granted by the third section of the act of 1869, except that an insignificant part of those lands, east of the company's breakwater of 1869, marked on map C "built 1873," was reclaimed from the lake by filling in before the act of 1873 was passed. The structures erected after the passage of the act of 1869 and before its repeal, between Chicago river and Randolph street and those south of Park row, were erected, as we have seen, either under the power conferred upon the company by its charter, or with the consent, expressed or implied, of the city or in the exercise of its rights as riparian owner of lots or ground on the shore of the lake. Indeed,

Opinion, filed September 24, 1888.

it is apparent, with the slight exception just stated, that no expenditures were incurred by the railroad company prior to the repealing act of 1873 distinctly upon the faith of the grant of submerged lands in the third section of the act of 1869.

In support of the position that the legislature could not, constitutionally, recall this grant of submerged lands, counsel for the company confidently rely upon *Fletcher v. Peck*, 218 6 Cr., 87. In that case it was said, among other things:

"The contract between Georgia and the purchasers was executed by the grant. A contract executed, as well as one which is executory, contains obligations binding on the parties. A grant, in its own nature, amounts to an extinguishment of the right of the grantor and implies a contract not to reassert that right. A party is, therefore, always estopped by his own grant. Since, then, in fact, a grant is a contract executed, the obligation of which still continues, and since the constitution uses the general term, contract, without distinguishing between those which are executory and those which are executed, it must be construed to comprehend the latter as well as the former." This general language must be interpreted with reference to the facts and issues in the particular case in which it is used. The case of *Fletcher v. Peck*, was this: "A statute of Georgia directed certain portions of the vacant lands of that State to be sold to James Gunn and others, constituting the Georgia Company, at a named price. Upon the payment of \$50,000 by the purchasers, the governor was required to issue and sign a grant for the same, taking a mortgage to secure the balance, \$200,000, payable at a designated time. The cash payment was made and a grant was signed and issued by the company. The estate passed ultimately into the hands of a purchaser for a valuable consideration without notice and thereafter the legislature of Georgia repealed the original act outright. The question presented was, whether such repeal could affect the vested rights of that purchaser. The court adjudged that the State was restrained, "either by general principles which are common to our free institutions or by the particular provisions of the Constitution of the United States, from passing a law whereby the estate of the plaintiff in the premises so purchased could be constitutionally and legally impaired and rendered null and void." Had the legislature of Georgia repealed the original act before the first purchaser

made payment therefor and before the governor had signed and issued the grant and taken the required mortgage, the repeal would not have been open to the objection that it took away a vested estate acquired, under valid legislation, by a subsequent purchaser without notice. It is clear that the present case is not controlled by *Fletcher v. Peck*. The railroad company was not a purchaser of the submerged lands. It paid nothing for them. It only assumed to pay a certain per centum of any income that might be derived from the use of the lands, but it did not come under any enforceable obligation to use them. In short, it accepted the grant of the submerged lands with the knowledge that the only purpose of the State was to improve the harbor of Chicago by the construction and maintenance of wharves, docks, and piers in aid of commerce on the lake, but without assuming any obligation to make the improvements contemplated. The repeal of the act making the grant was, therefore, nothing more than a change of policy upon the part of the State, which took from the company no franchise or privilege secured by its charter. The State, in effect, only revoked the license

which had been granted to the company to improve the harbor of Chicago, and discharged it from every obligation it might have incurred by entering upon and completing that work.

Upon the whole case, we are of opinion that the effect of the repealing act of 1873 was to withdraw from the railroad company as well the grant of the submerged lands described in the third section of the act of 1869 as the additional powers therein conferred upon it by implication to engage in the business of constructing and maintaining wharves, piers, and docks for the benefit of commerce and navigation generally, and not in the prosecution of its business as defined and limited by its original charter, saving to the company the right to hold and use, as part of its way ground or right of way, the small part of the submerged lands, outside of its breakwater of 1869, between Monroe and Washington streets, extended eastwardly, which was reclaimed, presumably upon the faith of the act of 1869, from the lake in 1873, and is marked on the map C "built in 1873." Such repeal was attended with the further result that while the city of Chicago may under its charter, preserve the harbor, prevent obstructions being placed therein, and make wharves and slips at the ends of streets, the exercise of these powers and the whole subject of the development or improvement of the

Opinion, filed
tember 24, 11

Opinion, filed September 24, 1888.

harbor by a system of wharves, docks, piers, and other structures is with the State, subject only to the paramount authority of the United States under the power of Congress to regulate commerce.

Several important questions were made in reference to the grant in the 4th section of the act of 1869 to the Illinois Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, and the Michigan Central Railroad Company of all of the right and title of the State in and to the lands, submerged or otherwise, lying north of the south line of Monroe street and south of the south line of Randolph street and between the east line of Michigan avenue and the track and roadway of the Illinois Central Railroad Company. But, for the purpose of disposing of this branch of the case, it is only necessary to say that, construing sections five and six in connection with section four, it is clear that this grant was upon condition that those railroad companies would pay to the city a named sum in installments and within a fixed time; and if the tender of the first installment of \$200,000 to the comptroller was binding upon the city, the subsequent return of the money to the railroad companies, at their request, deprived them of whatever benefit accrued from that tender, leaving them in the attitude of never having performed the conditions upon which they were to acquire the title to those lands; so that the title remains just where it was before the passage of the act of 1869, namely, in the city of Chicago, in virtue of the recorded subdivision into lots, streets, and public grounds of fractional section 15 and of the southwest quarter of fractional section 10.

In the case of the United States v. Illinois Central Railroad Company it may be said that upon the demurrer which has been filed the court can only take into consideration the allegations of the information and such matters as are 220 within its judicial knowledge. It cannot bring into that case, as now presented, facts which may have been proven in other cases. The demurrer is sustained, except as to that part of the information which alleges in substance that the Illinois Central Railroad Company claims the absolute ownership of and threatens to take possession of, use and occupy the outer harbor of Chicago. It is the opinion of the court that the General Government, upon the showing made by it, has no title to any of the streets or grounds described

in said information and has no standing in court, except so far as it seeks to protect the said harbor against obstructions that would impair the public right of navigation or interfere with any plan devised by the United States for the development or improvement of the harbor.

Opinion, filed &
tember 24, 1888.

What has been said is sufficient to dispose of all the questions in these causes which, in the judgment of the court, it is necessary to decide.

Counsel will prepare and submit to the court such orders or decrees as will be in conformity with the foregoing views.

(Endorsed:) Filed Sept. 24, 1888. Wm. H. Bradley,
Clerk.

On the same day, to wit, on the 24th day of September, in the July term of said court, 1888, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Decree, entered
Sept. 24, 1888.

Circuit Court of the United States, Northern District of
Illinois.

The People of the State of Illinois upon
the Relation of George Hunt, Attorney
General,

vs.

The Illinois Central Railroad Company,
The City of Chicago, and The United
States of America.

Information
in Equity.

The City of Chicago

vs.

The Illinois Central Railroad Company,
The United States of America, and The
People of the State of Illinois.

Cross-Bill.

September 24, 1888.

This cause coming on to be heard upon the amended information of The People of the State of Illinois on the relation of George Hunt, attorney general, filed March 6, 1886,

Decree, entered
Sept. 24, 1888.

as further amended by leave of court June 21, 1887, and on that day refiled as amended; the separate answer of the defendant The Illinois Central Railroad Company to said amended information, filed May 3, 1886; the amendments of said company to its said answer, filed, by way of answer to the amendments to said amended information, June 30, 1887; the separate answer of the defendant The City of Chicago, filed June 1, 1886, as amended by amendments filed by 221 leave of court June 20, 1887, and the replications to said answers; the cross-bill of the city of Chicago, filed June 20, A. D. 1887, by leave of court; the separate answer of the Illinois Central Railroad Company to said cross-bill, filed June 29, 1887; the replication to said answer (The People of the State of Illinois, by George Hunt, their attorney general, having also filed their separate answer to said cross-bill herein June 29, 1887, and the city its replication thereto), and also upon the several stipulations made and the evidence taken and filed herein; and the court having heard W. G. Ewing, district attorney of the United States for the northern district of Illinois, counsel for the United States of America, duly thereunto authorized, as well as The People of the State of Illinois, by George Hunt, their attorney general, and by E. B. McCagg, Williams & Thompson, J. K. Edsall, and A. S. Bradley, their counsel; The Illinois Central Railroad Company, by B. F. Ayer, John N. Jewett, and Lyman Trumbull, its counsel, and The City of Chicago, by Melville W. Fuller, its counsel in this behalf, and said cause having been taken under advisement and the court being now duly advised in the premises—

It is found and adjudged that—saving the rights, to be hereinafter defined, of the Illinois Central Railroad Company—(1) the fee of all the streets, avenues, alleys, and public grounds shown upon the plat of the southwest fractional quarter of section ten, township twenty-nine north, range fourteen east, of the third principal meridian, known as Fort Dearborn addition to Chicago, acknowledged June 7, 1839, by Matthew Birchard, solicitor of the General Land office and agent of the War Department of the United States, and duly filed the same day for record in the recorder's office of Cook county, Illinois (a plat or map of which addition, as it appears in the opinion filed herein February 23, 1888, is made part hereof by reference), including the entire open space, part of fractional section 10, on the shore of

Decree, entered
Sept. 24, 1888.

the lake, as the same appears on the said plat of Fort Dearborn addition, south of the north line of Randolph street extended to the lake and north of the sectional line between sections ten and fifteen, upon a part of which open space are the lots: "Public ground forever to remain vacant of buildings;" and (2) the fee of that part of fractional section fifteen, township twenty-nine north, range fourteen east, of the third principal meridian, as the same appears on the plat or map of the canal commissioners' subdivision of said fractional section fifteen, acknowledged June 13, 1836, filed for record June 18, 1836, and duly recorded July 20, 1836, in Book H, page 230, in the recorder's office of Cook county, Illinois (a copy whereof is made part of said opinion and is made by reference part hereof), bounded on the north by the sectional line between fractional sections ten and fifteen, on the west by the west line of Michigan avenue, on the east by Lake Michigan, and on the south by the north line, extended eastwardly, of block twenty-three of said subdivision and by that part of the sectional line between fractional sections fifteen and twenty-two which lies between the west line of block twenty-three and the east line of block twenty-one, each extended southwardly; and (3) the fee of all the made

or reclaimed ground as it now exists and as it appears 222 on the Morehouse map (made part of said opinion and made part hereof by reference) east of Michigan avenue and between the north line of Randolph street extended to Lake Michigan and the north line of block twenty-three extended to said lake, including the grounds upon which rest the tracks and breakwater constructed by the said company between said last named lines on the lake front, and including the small triangular piece of ground east of the present tracks and breakwater of said company, south of Randolph street, between the north lines of Washington and Monroe streets, extended to the lake, and marked on the Morehouse map with the words "built 1873," are all in the city of Chicago in trust for public use.

That the said city of Chicago, as riparian owner of said grounds on the east or lake front of said city, between the north line of Randolph street and the north line of said block twenty-three, each of said lines being produced to Lake Michigan, and in virtue of authority to that end conferred by its charter, has, among other powers, the power to establish, construct, erect, and keep in repair on said lake

Decree, entered
Sept. 24, 1888.

front, east of said premises, within the lines last given, and in such manner as may be consistent with law, public landing places, wharves, docks, and levees, subject, however, in the execution of that power, to the authority of the State by legislation to prescribe the lines beyond which piers, docks, wharves, and other structures, other than those erected by the General Government, may not be extended into the waters of the harbor that are navigable in fact, and to such supervision and control as the United States may rightfully exercise in and over said harbor, and subject also to the enjoyment by the Illinois Central Railroad Company of the rights now to be defined and described.

And the court doth further find and declare and it is hereby adjudged and decreed—

That the Illinois Central Railroad Company is the owner in fee of all wharves, piers, and other structures erected by it in the city of Chicago, east of Michigan avenue, south of Chicago river, and north of the north line of Randolph street extended eastwardly, as shown upon said Morehouse map, including the station grounds lying west of the slip C, the pier marked C, lying east of slip C and represented upon the Morehouse map to have been built in 1867, and piers 1, 2, and 3, lying east of pier C last mentioned and represented upon said map to have been built as follows: pier 1 in 1872 and 1873, pier 2 in 1881, and pier 3 in 1880, and is also entitled to the use, for purposes of its business, of the slips marked on said Morehouse map.

That said company is likewise the owner in fee of all the wharves, piers, and other works made and constructed by it in the city of Chicago east of its main tracks between the north line of block 23, in fractional section 15 addition to Chicago, and the center line of Sixteenth street extended, including the pier or line of piling represented upon the said Morehouse map to have been built in 1870, and the station grounds lying west of the said pier and contiguous thereto; also of the wharf or pier projecting into the lake from 223 the grounds last mentioned and represented upon the said Morehouse map to have been built in 1885; which said wharves, piers, and other works so constructed and so far as constructed by the said Illinois Central Railroad Company as aforesaid are lawful structures and not encroachments

upon the domain of the State of Illinois or upon the public right of navigation or upon the property, interests, or estate of the said city of Chicago.

Decree, entered
Sept. 24, 1888.

The the present occupancy and use by the Illinois Central Railroad Company for purposes of a right of way and not otherwise of two hundred in width of ground north of the southern boundary of the open space known as Lake park (the west line of said ground so occupied and used being four hundred feet from and parallel with the west line of Michigan avenue), and its occupancy and use for like purposes and not otherwise of the two triangular pieces of ground immediately south of Randolph street and east of the company's present tracks, one of them being east of the breakwater and marked "built 1873," is in accordance with law and the provisions of certain ordinances of the city of Chicago, to wit, an ordinance entitled "An ordinance concerning the Illinois Central Railroad Company," passed June 14, 1852; an ordinance or resolution passed by the common council of said city September 10, 1855, granting said company permission to curve its tracks westwardly of the line fixed by said ordinance of June 14, 1852, extending and carrying said tracks northwesterly as they approach its passenger-house, and an ordinance passed September 15, 1856, granting to said company additional right of way to enable it to approach and use its station grounds north of Randolph street and Chicago river.

That said company is entitled to the use in perpetuity of the said two hundred feet in width and said two triangular pieces of ground last described for purposes of a right of way and not otherwise, subject to such regulations in respect to said use as the city of Chicago or the State of Illinois may legally establish and subject to the terms and conditions of said ordinances of 1852, 1855, and 1856, except that if the city could, consistently with the charter of said company, grant to it, as by said ordinance of 1852 it assumed to do, the right to use for its line of road and other works necessary to protect the same from the lake a width of three hundred feet from the southern boundary of Lake park near Twelfth street to the northern line of Randolph street, the said company has elected to appropriate for such purposes a width of only two hundred feet, and cannot now, without further li-

Decree, entered
Sept. 24, 1888.

cense from proper public authority, appropriate a greater width.

That the bridge or viaduct constructed by the Illinois Central Railroad Company over its tracks and grounds at the foot of Randolph street, with the approaches thereto, is a lawful structure, having been erected in conformity to the provisions of the ordinance, legally passed by the city council of Chicago July 12, 1880, entitled "An ordinance extending Randolph street to Lake Michigan and providing for viaduct over tracks of Illinois Central Railroad."

And the court doth further find and declare, and it is hereby adjudged, that the third section of the act of the

General Assembly of the State of Illinois, passed over the governor's veto April 16, 1869, entitled "An act in relation to a portion of the submerged lands and Lake park grounds, lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago" so far, at least, as it confirms "the right of the Illinois Central Railroad Company, under the grant from the State in its charter, * * * and under and by virtue of its appropriation, occupancy, use, and control, and the riparian ownership incident to such grant, appropriation, occupancy, use, and control in and to the lands submerged or otherwise, lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue, in fractional sections ten and fifteen," is a valid and constitutional exercise of legislative power and legalizes as well what was done by said company prior to April 16, 1869, in the way of filling in the lake and constructing wharves, piers, tracks, warehouses, and other works between the Chicago river and the north line of Randolph street extended eastwardly as its occupancy and use for way ground of the two said triangular pieces of ground immediately south of Randolph street, and that the subsequent act of the General Assembly of Illinois, passed April 15, 1873, in so far as it sought, by repealing the said act of April 16, 1869, to revoke or annul said confirmatory clause of the last-named act was void under the Constitution, both of Illinois and of the United States; but the court is of opinion and so adjudges and decrees that the said act of April 15, 1873, repealing said act of April 16, 1869, had the effect, in law, to withdraw from said railroad company the grant to it, its successors and assigns, by the third section of said act of April 16, 1869, of "all the right and title of the State of

Illinois in and to the submerged lands constituting the bed of Lake Michigan, and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile, and between the south line of the pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the roundhouse and machine shops of said company, in the south division of said city of Chicago," and to reinvest the State with such right and title as it had in and to said premises prior to the passage of said act of April 16, 1869; and said repealing act had the further effect to withdraw from said company the additional power conferred upon it by said act of April 16, 1869, to improve the harbor of Chicago and to engage in the business of constructing and maintaining wharves, piers, and docks for the benefit of commerce and navigation generally, and not in the original prosecution of its business, as defined and limited by its original charter and the laws of the State, saving, however, to said company, as unaffected by said repeal, the right to hold and use as part of its way ground or right of way, and not otherwise, the before-mentioned part of the submerged lands east of its breakwater, between Monroe and Washington streets extended eastwardly, which was reclaimed from the lake in 1873, presumably upon the faith of the act of 1869, and is marked on the Morehouse map 225 with the words "built 1873."

Decree, entered
Sept. 24, 1888.

It is further ordered, adjudged, and decreed that the defendant The Illinois Central Railroad Company be, and it is hereby, perpetually enjoined and restrained from erecting structures in or filling with earth or other materials any portion of the bed of Lake Michigan as it now exists and as shown on said Morehouse map east or in front of said fractional sections ten and fifteen—that is, east or in front of the grounds now occupied and used by it between Chicago river and the north line of Radolph street extended eastwardly or east or in front of the grounds now occupied and used by it between the north line of Randolph and the center line of Sixteenth street, each extended eastwardly, except that said company may complete the slip or basin already commenced immediately north of Sixteenth street extended, with a wharf on each side of it not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load and unload and upon which tracks of the company may

Decree, entered
Sept. 24, 1888.

be laid; and it is considered and ordered by the court that the Illinois Central Railroad and the city of Chicago each pay one-half of the costs herein, and that execution issue therefor.

JOHN M. HARLAN,

Associate Justice of the Supreme Court of the United States.

Motion, Sept. 29,
1888.

Afterward, to wit, on the twenty-ninth day of September, 1888, came the Illinois Central Railroad Company, by its solicitor, and filed in said clerk's office its motion in said entitled cause; which said motion is in the words and figures following, to wit:

MOTION.

In the Circuit Court of the United States in and for the Northern District of Illinois.

The People of the State of Illinois	}	Information in Equity.
vs.		
Illinois Central Railroad Company et al.	}	Cross-Bill.

The City of Chicago	}	Cross-Bill.
vs.		
Illinois Central Railroad Company et al.	}	

Now comes the said defendant, The Illinois Central Railroad Company, and moves the court here that the final decree entered in the above-entitled suit be modified and amended; and the said defendant further prays leave of the court that the foregoing motion be continued to the October term, with leave to file its proposed amendments and modifications to said decree at that term.

E. R. WOODLE,

Solicitor for said Defendant, The Ill. Cent. R. R. Co.

(Endorsed:) Filed Sept. 29, 1888. Wm. H. Bradley, cl'k.

226 On the same day, to wit, on the twenty-ninth day of September, in the July term of said court, 1888, in the record of the proceedings thereof in said entitled cause, before Hon. Walter Q. Gresham, circuit judge, is the following entry, to wit:

Order, September 29, 1888.

ORDER.

The People of the State of Illinois)	In Chancery.
vs.		
Illinois Central Railroad Company et al.)	Information.
and		
The City of Chicago)	Cross-Bill.
vs.		
Illinois Central Railroad Company et al.)	

It is ordered that the motion of said defendant, Illinois Central Railroad Company, this day filed, praying that the decree entered herein September 24, 1888, may be modified, be continued to the next term of this court, and leave is hereby given said defendant company to file its proposed amendments and modifications of said decree at that term.

Afterward, to wit, on the twenty-fifth day of January, 1890, in the December term of said court, 1889, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Order granting appeal of U. S., January 23, 1890.

ORDER.

The People of the State of Illinois)	In Chancery.
vs.		
Illinois Central Railroad Company et al.)	

Now comes the United States of America, by William G. Ewing, United States attorney for this district, and prays an appeal from the decree herein to the Supreme Court of the United States, which is allowed.

Petition for appeal I. C. R. R. Co., filed July 16, 1890.

Afterward, to wit, on the sixteenth day of July, 1890, came the Illinois Central Railroad Company, by its solicitor, and filed in said clerk's office its petition in said entitled cause; which said petition is in the words and figures following, to wit:

227

PETITION.

Circuit Court of the United States of America for the Northern District of Illinois, in the Seventh Circuit.

The People of the State of Illinois upon the Replication of George Hunt, Attorney General,	}	Information in Equity.
vs.		
The Illinois Central Railroad Company, City of Chicago, and The United States of America.	}	Cross-Bill.
vs.		

The City of Chicago	}	Cross-Bill.
vs.		
The Illinois Central Railroad Company, The United States of America, and The People of the State of Illinois.	}	
vs.		

The above-mentioned Illinois Central Railroad Company, defendant in both the above-entitled original and cross suits, conceived itself aggrieved by the final decree entered on the 24th of September, 1888, in the above-entitled suits, doth hereby appeal from said decree to the Supreme Court of the United States; and it prays that this its appeal may be allowed, and that a transcript of the record and proceedings and papers upon which said decree was made may be sent to the Supreme Court of the United States.

JNO. N. JEWETT,

Solicitor and of Counsel for the Defendant and
Appellant The Illinois Central Railroad Company.

Chicago, July 16th, 1890.

(Endorsed:) Filed July 16, 1890. Wm. H. Bradley, clerk.

On the same day, to wit, on the sixteenth day of July, in the July term of said court, 1890, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

Order granting
appeal I. C. R.
R. Co., July 16,
1890.

ORDER.

The People of the State of Illinois, &c.,	} In Chancery.
vs.	
The Illinois Central Railroad Company,	
et al.	

Now comes the defendant The Illinois Central Railroad Company, by John N. Jewett, Esq., its solicitor, and prays an appeal to the Supreme Court of the United States, which is allowed upon its giving bond in the penal sum of five thousand dollars, conditioned according to law and with security to be approved by the court.

228 On the same day, to wit, on the sixteenth day of July, 1890, there was filed in said clerk's office an appeal bond in said entitled cause; which said appeal bond is in the words and figures following, to wit:

APPEAL BOND.

Know all men by these presents that we, the Illinois Central Railroad Company and Stuyvesant Fish and Benjamin F. Ayer, are held and firmly bound unto the People of the State of Illinois and the City of Chicago and each of them severally in the full and just sum of five thousand dollars, to be paid to the said obligees or each of them severally; to which payment, well and truly to be made, we bind ourselves, our successors, heirs, executors, and administrators, jointly and severally, by these presents.

Appeal Bond I. C.
R. R. Co., filed
July 16, 1890.

Sealed with our seals and dated this sixteenth day of July, in the year of our Lord one thousand eight hundred and ninety.

Whereas lately, at a term of the circuit court of the United States in and for the northern district of Illinois, held at

Appeal Bond I. C.
R. R. Co., filed
July 16, 1890.

Chicago, to wit, on the 24th day of September, A. D. 1888, in a suit depending in said court between The People of the State of Illinois, complainants in the original bill, and The Illinois Central Railroad Company and The City of Chicago, defendants, and between The City of Chicago, complainant in the cross-bill, and The Illinois Central Railroad Company, defendant therein, a decree was rendered against the said Illinois Central Railroad Company, and the said Illinois Central Railroad Company has prayed and obtained an appeal to reverse the decree in the aforesaid suit, and a citation directed to the said People of the State of Illinois and the said City of Chicago, citing and admonishing them to be and appear at a Supreme Court of the United States to be holden at Washington the second Monday of October next:

Now, the condition of the above obligation is such that if the said Illinois Central Railroad Company shall prosecute its appeal to effect and answer all damages and costs if it fail to make its plea good, then the above obligation to be void; else to remain in full force and virtue.

ILLINOIS CENTRAL RAILROAD
COMPANY,

By STUYVESANT FISH, [Seal.]

Its President.

STUYVESANT FISH. [Seal.]

BENJAMIN F. AYER. [Seal.]

Attest: JOHN DUNN,

Ass't Sec'y.

[Corporation Seal.]

Sealed and delivered in presence of—

EDWARD R. WOODLE.

Approved by—

H. W. BLODGETT, Judge.

(Endorsed:) Filed July 16, 1890. Wm. H. Bradley, clerk.

229 Afterward, to wit, on the twenty-third day of July, in the July term of said court, 1890, in the record of the proceedings thereof in said entitled cause, before Hon. Henry W. Blodgett, district judge, is the following entry, to wit:

ORDER.

The People of the State of Illinois ex Rel. George Hunt, Attorney General,	}	Information in Chancery.
vs.		
Illinois Central Railroad Company, City of Chicago, and The United States of America.		

Order granting
appeal of City
of Chicago,
July 23, 1890.

and

The City of Chicago	}	Cross-Bill.
vs.		
The Illinois Central Railroad Company, The United States of America, and The People of the State of Illinois.		

And now, on this 23d day of July, A. D. 1890, comes the city of Chicago, by Jonas Hutchinson, the corporation counsel of said city, and by James K. Edsall, special counsel of the city of Chicago for this purpose, and prays on appeal from the decree of this court heretofore entered in this cause to the Supreme Court of the United States: which appeal of said city of Chicago is allowed by the court upon the filing of an appeal bond by the city of Chicago in the penal sum of five thousand dollars, with security to be approved by the court.

Afterward, to wit, on the twenty-eighth day of July, 1890, there was filed in said clerk's office an appeal bond in said entitled cause; which said appeal bond is in the words and figures following, to wit:

Appeal Bond City
of Chicago, July
28, 1890.

APPEAL BOND.

Know all men by these presents that we, the City of Chicago, as principal, and Bernard Roesing, as surety, are held and firmly bound unto the Illinois Central Railroad Company and the People of the State of Illinois and each of them severally in the full and just sum of five thousand dollars, to be paid to the said obligees and each of them severally or to

Appeal Bond City
of Chicago, July
28, 1890.

their successors or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally, by these presents.

Whereas lately, at a term of the circuit court of the United States for the northern district of Illinois, held at Chicago, to wit, on the 24th day of September, 1888, in a suit or information in equity depending in said court between The People of the State of Illinois ex rel. George Hunt, attorney general, and The Illinois Central Railroad Company and The City of Chicago, defendants, and a certain cross-bill therein between The City of Chicago, as complainant, and The Illinois Central Railroad Company and The People of the State of Illinois, defendants, a decree was rendered against the said City of Chicago, and the said City of Chicago having prayed an appeal to the Supreme Court of the United States, which was allowed by said circuit court, to reverse the decree in the aforesaid suit, and a citation directed to the said Illinois Central Railroad Company and the People of the State of Illinois ex rel. George Hunt, attorney general, citing and admonishing each of them to be and appear at a Supreme Court of the United States to be holden at Washington on the second Monday of October next:

Now, the condition of this obligation is such that if the said City of Chicago shall prosecute its said appeal to effect and answer all costs if it fail to make its plea good, then the above obligation to be void; otherwise to remain in full force and virtue.

In witness whereof the said City of Chicago hath caused its corporate name to be hereunto subscribed by Dewitt C. Cregier, mayor of said city, and its corporate seal to be hereunto affixed, and the said surety to said bond hath hereunto set his hand and seal this twenty-fourth day of July, A. D. 1890.

THE CITY OF CHICAGO,

By DEWITT C. CREGIER, Mayor. [Seal.]

BERNARD ROESING. [Seal.]

Attest: FRANZ AMBERG,

City Clerk. [Seal.]

Approved.

H. W. BLODGETT, Judge.

(Endorsed:) Filed July 28, 1890. Wm. H. Bradley, clerk.

In the Circuit Court of the United States for the Northern
District of Illinois.

Report of Master,
filed June 4, 1887.

People of the State of Illinois ex Rel. George Hunt, Attorney General, Com- plainant, vs. Illinois Central Railroad Company and City of Chicago, Defendants.	}	In Chancery.
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Evidence on Behalf of Complainant and of Each of said De-
fendants, Taken Before E. B. Sherman, Master in Chan-
cery of said Court.

George Hunt, attorney general; Williams & Thompson,
McCagg & Culver, James K. Edsall, A. S. Bradley, solicitors
for complainant; B. F. Ayer, Lyman Trumbull, John N. Jew-
ett, E. R. Woodle, solicitors for defendant Illinois Central
Railroad Co.; M. W. Fuller, O. H. Horton, solicitors for de-
fendant City of Chicago.

On the fourth day of June, 1887, came E. B. Sherman, one
of the masters in chancery of said court, and filed in said
clerk's office his report in said entitled cause; which said re-
port, together with the testimony and exhibits thereto at-
tached, are in the words and figures following, to wit:

231 In the United States Circuit Court for the Northern
District of Illinois.

People of the State of Illinois ex Rel. George Hunt, Attorney General, Com- plainant, vs. Illinois Central Railroad Company and City of Chicago, Defendants.	}	In Chancery.
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To the honorable the judges of said court:

The undersigned, master in chancery of said court, to
whom by an order entered therein on the 29th day of May,
1886, the above-entitled cause was referred, directing him as

Report of Master,
filed June 4, 1887.

such master to take proofs therein and to report the same to the court, respectfully reports—

That said cause was set down for hearing before the said master, for the purposes in said order of reference specified, on the 8th day of April, 1887, at his office, room 11, 103 Adams street, in the city of Chicago; that at such hearing and at subsequent hearings there appeared Messrs. Williams & Thompson, Messrs. McCagg & Culver, Mr. J. K. Edsall, and Mr. A. S. Bradley, solicitors for said complainant; Mr. B. F. Ayer, Mr. Lyman Trumbull, Mr. John N. Jewett, and Mr. E. R. Woodle, solicitors for defendant Illinois Central Railroad Company, and Mr. M. W. Fuller and Mr. George M. Haynes, corporation counsel, solicitors for defendant City of Chicago; that evidence was taken from time to time on behalf of said complainant and on behalf of each of said defendants, as by the record herein more fully appears; that pursuant to a stipulation of counsel the said master has caused the evidence so taken before him to be printed, and that the following printed copy, excepting certain maps and documents offered in evidence by the respective parties, as hereinafter appears, is a full and true copy of such evidence so taken before said master; that such deeds and documents offered in evidence, as by stipulation of said counsel said master was directed not to print, together with the maps offered in evidence as aforesaid and made exhibits, as hereinafter appears, are made a part hereof and herewith returned into court, properly identified by said master.

Respectfully submitted.

E. B. SHERMAN,

Master in Chancery of said Court.

Chicago, June 2, 1887.

232 Evidence on behalf of complainant and defendants, taken before E. B. Sherman, master in chancery of said court, at his office, room 11, No. 103 Adams street, Chicago, commencing on the 8th day of April, 1887, and continuing from time to time, as hereinafter noted.

EVIDENCE ON BEHALF OF COMPLAINANT.

Evidence before
Master.

April 8, 1887.

Present: Messrs. Williams & Thompson, McCagg & Culver, and Edsall & Edsall, solicitors for complainant; B. F. Ayer and Lyman Trumbull, solicitors for defendant The Illinois Central Railroad Company, and George M. Haynes, corporation counsel, solicitor for defendant The City of Chicago.

JONATHAN YOUNG SCAMMON, being first duly affirmed, testified on behalf of complainants as follows:

Direct examination by Mr. McCagg:

Q. Will you give your full name?

A. My name is Jonathan Young Scammon.

Q. You are a resident of Hyde Park?

A. Yes, sir.

Q. When did you come to Chicago to reside?

A. I arrived here the 20th of September, 1835.

Q. Were you present at the sale of lots in Fort Dearborn addition, made under the direction of the Secretary of War?

A. I was.

Q. When was that?

A. In 1839.

Q. Did you make a purchase or purchases at that sale?

A. I did.

Q. Did you afterwards build a residence on your purchase or a portion of it?

A. I did; at the northwest corner of Randolph street and Michigan avenue.

Q. When did you build that house?

A. I think in 1840. The sale was in 1839 and I built it the next year.

Q. Had you resided in Chicago during the interval between the time when you came here and the time of the building of the house?

A. Since 1835 I have always lived in Chicago or just outside of it, in Hyde Park. I say I have always resided here, excepting one year. There was one year after the fire when I made my residence in Milwaukee, after my house was burned up, but I was still here doing business. I went up to

Evidence before
Master.

Milwaukee, took up my residence at the Plankinton house, and lived there for a year or the greater part of it. With that exception, I have lived here always.

Q. How long did you occupy as your residence the house on the corner of Randolph street and Michigan avenue?

233 A. I can't recollect distinctly the year——

Q. About when did you leave?

A.—but I should say it was probably in 1852, 1853, or 1854—I can't fix it—that I removed the house down to Congress street and lived there until—I can't fix the exact year; don't recollect the exact year that I moved down there.

Q. Your premises on Congress street front on or have a front on Michigan avenue?

A. Yes, sir.

Q. You remained there up to the time of the fire in the fall of 1871?

A. I did not remain in the same house, but I resided on the same premises. I had a large tract of land there and a large garden, and the new house was on one side of the garden and the old house on the other; but I resided at the same place all the time.

Q. You lived there subsequently and all the time from the time you built the house on the corner of Randolph street and Michigan avenue and on Michigan—down to 1871?

A. I did. There may have been—I think there were—intervals before I finally left the corner of Randolph street and Michigan avenue, when I leased the house and boarded at one of the hotels in the vicinity.

Q. Had you occasion during that period of time, and particularly during the early part of it, to become familiar with the shore line of the property from the river south to 12th street?

A. I think so.

Q. You lived opposite it all the time?

A. While I lived at the corner of Michigan avenue and Randolph street I lived so that from my front windows I could look over the whole distance of it. The shore line at Randolph street commenced at that place, you know, and extended down for a mile and over south.

Q. Was it open ground at that time when you first saw it, or were there buildings or improvements of any kind on it from Randolph street down?

A. There was a house called the old Handy house, situated, I should think, about half way, or very nearly that,

between Randolph street and Madison street, that was occupied when I came here by a Col. Handy or Major Handy, and with that exception—there was a house and garden there and burying-ground in the neighborhood of it on the lake shore. Handy's house was on the lake shore, between what is now Randolph street and Madison street, when I came here in 1835. There was that house—I think it was a log house, or, if not a log house, I should say probably it was made of hewn timbers—and there was a garden, I know, and trees in it and near it. Perhaps east of it a little had been a graveyard where the soldiers had been buried from the fort.

Q. Were you on the ground?

A. Yes, sir; frequently.

Q. Will you tell us a little more in detail what you mean by "frequently"?

234 A. When I was a young man and first came down here, I used to walk down there frequently. Mr. John Wright lived at the corner of Madison street and Michigan avenue, what would be on the west side of Michigan avenue extended. I used to walk down there by his house frequently for exercise and see the lake shore, and then we were all in the habit of walking down to the lake very often, or at least those that I was acquainted with.

Q. You were, in your judgment, absolutely familiar with the ground, were you not?

A. Oh, I think so.

Q. Had you anything to do with it personally, yourself, at any time; and, if so, what?

A. After the sale by the Government of Fort Dearborn and after the sale by the canal commissioners, after they had laid out section 15, after I had gone down to live at the corner of Michigan avenue and Randolph street, I applied to the city council for permission to fence up Dearborn park and to build a fence to enclose the land which should be east of the line that I designated as the east line of Michigan avenue, as a park, and they gave me permission to do so, and I employed Henry L. Fulton to do so, and while that was building was on the premises very frequently.

Q. When was that?

A. I don't believe I can tell the year, but of course it was probably after 1843, for the last canal sale was in 1843, and it was after I went down there to live. I didn't go down there to live till 1842; probably built the house in 1840. I don't think I went there to live before 1842, and it was after I

Evidence before
Master.

Evidence before
Master.

went there, somewhere between 1842, probably, and 1845; I can't fix the exact date.

Q. Upon what line, in reference to the west line of Michigan avenue, did you build this fence?

A. From Randolph street down to old John Wright's I followed the width of Michigan avenue as it was given on the map of Fort Dearborn addition, and from old John Wright's down to Park place I made it ninety feet wide; I think the reason was because Mr Wright had left the street ninety feet wide in front of his house and had fenced the ground opposite, extending from his house to the lake, and made a plantation of locust trees, and I followed his line, and that left the street ninety feet wide.

Q. Do you know whether, practically, Michigan avenue proper has remained that width ever since, from Wright's house down?

A. Well, after you get down to Park place, if you will look at the map—they call it Park row—that was laid out from there 120 feet wide, so that after you get down there, at first there was left 120 feet from there on, but afterward the council gave Mr. Wicker permission, I think, to fence up all that portion of the street that was over ninety feet wide, so that since that time, I think, it has always remained ninety feet in width from Park row down to the end of section 15 south, and from Madison street south.

Q. I understand you, then, Mr. Scammon, from the Wright house, which was at the corner of Madison
235 street, down to Park row, which is the street just north of 12th street, it from that time remained ninety feet wide?

A. Yes, sir; that is the case.

Q. And from Park row south 120 feet wide, until such time as the council gave Mr. Wicker permission to enclose it?

A. I think he did it without permission, but they didn't disturb him.

Q. I am right about the width?

A. Yes, sir.

Q. During the progress of these walks and the construction of this fence had you occasion to examine the width of this piece of ground—that is, the distance between the west line of Michigan avenue or the east line of Michigan avenue after you enclosed it and the lake shore?

A. Yes, sir; and I examined it at the time of the sale in 1836. Evidence before Master.

Q. You did examine it at the sale in 1836?

A. Yes, sir.

Q. What was that sale?

A. The canal commissioners laid out fractional section 15 in an addition to the town and sold it by public outcry on Michigan avenue.

Q. It is that sale that you have reference to?

A. Yes, sir.

Q. I wish you would state, as fully as you can, the shape—if possible, the dimensions—of that piece of ground from Randolph street south to Park row, together with its width, giving the length of the north and south lines.

A. My recollection is, without looking at the map, that the distance, as I carry it in my head, was about 700 feet at the south end, and it was somewhat less at the north end; probably between 500 and 600 feet—possibly 600 feet at the north end.

Q. 700 feet from where—at the south end?

A. I said that my recollection was that it was about 700 feet, and from this map it would be a little over 700 feet to the east end of the lots that were laid out from the west line of Michigan avenue. Michigan avenue is 120 feet wide. There are five lots eighty feet wide—that would be 400 feet—and one of 100 feet, which would make 500 feet; that would be just according to my recollection, about 700 feet from the west line of Michigan avenue to the water line. This map was laid out correctly, for I went over the ground frequently, because I wished to buy the lots or wished to buy some lots.

Q. What map is it you speak of?

A. I should suppose this is a copy of the map by which they sold. This is made in 1836. Yes, sir; this is a copy of the map, I should judge, which the canal commissioners sold by.

By Mr. Ayer: Is it a certified copy?

A. Yes, sir.

By Mr. McCagg: This map, which shows canal commissioners' subdivision of fractional section 15, 39, 14 east, 236 in Cook county, and made the 13th day of June, 1836, is offered in evidence and marked Complainants' Exhibit "A" to Scammon's testimony.

vidence before
Master.

Q. The question was also asked you in reference to the north line.

A. My recollection in relation to the north line is that it was between 500 and 600 feet, and I should suppose that is in accordance with the distance given there by the sale; that is my recollection.

Q. How was the line between the two points running north and south—a straight line?

A. Hardly a straight line. There is a general inclination from the north point to the south point southeasterly, but it was not uniform. It was a little wider in some points than in others, but it was pretty uniform. I should say, so far as I could recollect, that that map correctly represents the shore line as I recollect it.

Q. Tell us, please, the condition, shape, size, and situation, so far as you can, of the property north of this line lying between the south line of the river and the north line of Madison street or the center line of Madison street.

A. Between the south bank of the river and Madison street?

Q. Yes; between the south line of the river—that is, fractional section 10.

A. The north portion of that was the fort and was fenced up as a field and garden by the fort when I came here; don't know how far that fence extended down, but I should say it probably extended down as far as Lake street and perhaps as far down as Randolph street when I first came here. The fenced-up premises included State street, and was in part occupied by the fort. There were soldiers here, and there was an enclosure, including the north portion of this whole tract. I can't tell exactly how far that was down, but my impression would be that extended down probably as far as Randolph street, certainly as far as Lake. There was in the north portion of it the light-house and the buildings of the fort and the residence of Colonel Beaubien, a fur trader.

Q. The plat will show, doubtless, but state the boundaries of Fort Dearborn reservation.

A. Fort Dearborn reservation, when I came here, extended from Madison street to the river north and westward to and including State street or a portion of it, and from there eastward to the old channel of the river. There was an old channel when I came here. When I came here the old channel was open—that is to say, there was water in it all the way from the south pier down to or very near John Wright's

house; possibly below there. The south pier had been built across the old channel, and there was the commencement of the passage across the sand bar into the lake, but there was no harbor for vessels there. I came in the old Pennsylvania. We anchored in the lake and came ashore in a yawl-boat, and the lading of the steamboats and vessels was brought up in flats or small boats through this passage that was cut across the old sand bar. The sand bar had not been
237 dredged out. This old channel lay directly east of fractional section 10, and there was quite a river when I came here; that extended down to section 15, very nearly to John Wright's, and possibly below, but very near John Wright's houses when I came here and emptied into the lake, and the water was constantly running out when there was any high wind; not much of a stream at the outlet, but a little stream into the lake there when not stopped up by the washed or drifted sand.

Evidence before
Master.

Q. The sand bar you speak of formed on the east bank of the mouth of the river, didn't it?

A. Yes, sir—that is, of the old mouth of the river.

Q. And the river was as you have been now describing it?

A. Yes, sir.

Q. And ran from where to where, did you say?

A. It ran from the old mouth of the river; went, of course, from where the south pier was built across it down to the north line of section 15, or very near John Wright's house, and then emptied into the lake.

Q. This sand bar, then, in other words extended from the land lying on what is now or was the north side of the river, directly down opposite John Wright's house, didn't it?

A. The sand bar extended from the north side of what is now the harbor down to John Wright's.

Q. Extended from the land on the north side of the river?

A. Yes, sir.

Q. And the river made an angle, a right angle, and turned to the south?

A. Very near a right angle.

Q. And ran south to about Madison street?

A. Yes, sir.

Q. That sand bar was above water?

A. Oh, yes; it was all above water when I came here,

Evidence before
Master.

but then there were times when there would be a great storm, and the lower portion of it, perhaps, under circumstances would be covered with water; a great storm would fill up that old river and the water would be over the sand bar—over the lower end of it—and fill up the old channel.

Q. What was done artificially at any time, if ever, to carry the mouth of the river out into the lake in a straight line and protect it?

A. Well, I can't tell what was done before I came here, but when I came here there was about half way between the north pier, or so much of the north pier as had been built, and the south pier a little channel wide enough for a scow or yawl. It was formed by the water running out from the river or from the lake waters being driven to the river and deep enough for us to come ashore in the yawl, but afterwards the Government dredged all this and made a harbor.

Q. Did they do anything besides dredging it?

A. The Government built piers, you know, on either side—on the north side and on the south side—harbors made 238 by extending the piers from the north side and south side into the lake, but they didn't make the harbor without dredging it.

Q. Have those piers been maintained ever since?

A. Yes, sir; been extended.

Q. Can you give an idea, Mr. Scammon, of the position of that angle which you say the river made in reference to Michigan avenue—that is, how far it was from it, perhaps?

A. The angle?

Q. That the river made; yes. I want to get at the ground enclosed between Michigan avenue and the river and on its north line—these piers.

A. Well, of course, it was not exactly a right angle, because the water wore off the corner, but it was very near, as you may say, a rounded right angle. The water came out directly, substantially east in the river, till it came to the sand bar, and then it followed the sand bar down and went out. It was very nearly—not exactly a right angle, but nearer a right angle than anything else.

Q. Tell how far that was from Michigan avenue—the east line of Michigan avenue.

A. Well, the east line of Michigan avenue extended—I don't know that I ever measured it, but I should say—according to my recollection and my recollection of the buildings that were up there and people that lived in them to the

point of water when I came here and for several years afterwards, where the people lived in the fort, I should suppose that it must have been 100 or 200 feet from the east line of Michigan avenue, extending in a northerly direction to the water in the old river.

Mr. Ayer: You should say 100 or 200 feet from the water north on Randolph street?

A. Yes, sir.

Q. Randolph or Madison?

A. Madison. Up near the turn where it went into the lake, I mean. The street was not extended up to there. I never measured that. It would be, from my recollection, I should think, 200 or 300 feet, and perhaps more than that. It was a good deal more than that down at Randolph street, but my recollection would be that it extended farther to the east down at Randolph street than it did up at the point where it turned. That would be my recollection.

By Mr. McCagg: It was a turn out of the river?

A. Yes, sir.

Q. Have there been changes in this shore line you have been speaking of since you first became acquainted with it, Mr. Scammon?

A. Yes, sir; great changes.

Q. Will you state what they have been, and give, if you have any reason for it, the reason of such changes?

A. Well, when I came here the sand was accumulating on the sand bar and accumulating all the way down the lake shore from the south pier as far down as I had any occasion to observe, so that there was quite a large margin of sand east of the old bank of the river; this had been extended by the drift sand; the building of the pier caused the sand to float down and extend this sand bar so there got to be a good many acres in it, so much so that in 1836, I think it was, Jim Kinzie and somebody else built some shanties on it, intending to pre-empt it, and I think the Nobles—probably John and Mark Noble—built shanties or got a float and located on it; and I recollect that sand bar was surveyed and platted into a town by Talcott, I think, for a man by the name of George E. Walker. But there was quite a heavy sand spit there when I came here, so much so that when Col. Beaubien laid out Beaubien's addition—you know Col. Beaubien claimed to enter by pre-emption the whole of section 10 south of the river—that he, in connection with Mr. Breese, made a plat of it, and he extended his plat across the old channel of

Evidence before
Master.

the river, claiming all in this sand bar in addition to section 10, and in his plat I recollect the old sand bar; he was going to have water lots having a channel running from the main river down through the old channel or outlet of the river. Why I recollect so particularly about it was that I was in the recorder's office; Col. Hamdon was the recorder, and that was a sort of headquarters. I bought one or two lots of Col. Beaubien in this addition, to be paid for if the title proved good. I paid him \$100 down and would pay the remainder if the title turned out to be good, but it didn't.

Q. Continue, if you please, as to the condition of the shore from time to time.

A. Well, I was so much pleased with the lake shore that I determined, when I bought a residence, that I would buy down there. I tried to buy of Col. Beaubien, and when fractional section 15 was laid out, in 1836, by the canal commissioners, Mr. Morris was my partner, and we agreed we would buy there, but it was sold so high that we didn't buy in 1836; and then in 1839, when Judge Burchard laid out Fort Dearborn addition under the authority of the Secretary of War, I bought the northwest corner of what would be Randolph street extended and Michigan avenue.

Q. The question looked to the changes in the shore line, if you recollect, from time to time.

A. It continued to accumulate there until they extended the north pier, when the current was changed, and it first struck in upon the land a little south of Randolph street, and particularly down where the Handy house was. Whether that had carried the Handy house away or whether it was removed before the bank fell in there or not I don't know, but this current seemed to wear away the shore, so that whenever there was a big storm of wind the bank fell in, and in consequence of it the graves which were upon the high bank were all washed away, and the coffins and bones I saw exposed there. They were removed from there up to the old burying ground, as they were exposed, up on the north side of the river. The bank fell in or wore away so much that the city authorities undertook to protect it, and they put out first what was called a flat-iron protection, and that seemed to answer pretty well for awhile. On the further extension of the north pier the current was thrown further south, 240 so that, as I recollect, when Mr. Gurnee was mayor it got to be so very bad that I don't know how many feet, but I should suppose 200 or 300 feet, of the high ground of

the lake shore fell off into the lake, and Mr. Gurnee was so frightened that he got up at night and went and got teams and worked all night, I recollect, at one time to protect his house. He had built a fine house. I should say, as far as my recollection extends, it must have been on the south corner of Michigan avenue and Monroe street. It may have been a street further south, but the whole street was in danger, and the council went to work to protect it, and indeed, so far back as 1845, when I was in the council, we expended considerable money in putting in breakwaters to protect section 10, but from that time on this current kept operating, as it has done since, in wearing away as an undertow, so that when there would be a great storm the bank would fall down and wash away, just as it does on the Missouri river; great pieces would fall off at a time. I think sometimes fifty or a hundred feet fell off in a single storm; then when the wind would change in a different direction there would be a deposit again of sand, and it would be apparently making, but another change of wind, a great storm, would carry that off and carry off more, so that the city was obliged finally to protect what was left of the shore by driving sheet piling, and that was driven all the way from the north side of section 15 or very nearly so down to Park place.

Q. You have spoken of one storm that took so much of the bank at one time in the neighborhood of Mr. Gurnee's house. Were there other times within your knowledge when this destruction was repeated and perceptible?

A. Yes, sir; Mr. Collins and Charles Walker, myself, and a man that lived opposite to me, Mr. Stowell, made a regular business of fighting the storms there for years, until we sold out to the Illinois Central Railroad.

Q. What finally arrested that process of destruction along the lake shore?

A. The piles that were put in. The sheet piling stopped that for the time being, but the great protection came from the work of the Illinois Central Railroad after that came, and it made breakwaters on the outside.

Q. Had this process which you have spoken of continued from time to time down to the time when the railroad made its breakwater?

A. Yes, sir; and I was very anxious the Illinois Central railroad should come in there to protect the lake shore.

Q. This sand bar that you speak of east of the river, how rapidly did that disappear?

Evidence before
Master.

A. I think in the fall or winter of 1836, some time, George E. Walker had it floated and laid out in lots by Mr. Talcott; I think it was in the fall or winter of that year. Then great storms came up and washed it all away, so it settled the disputed title to the sand bar or substantially so.

I suppose a considerable portion of it was washed off into the old channel of the river, but it was substantially washed away and disappeared in the great storms of the fall of 1836, I should think. Possibly I may be mistaken in the year, but I think not.

Q. What do you mean by a float?

A. Under the pre-emption law a settler—when there were two settlers on the same quarter section of land each party was entitled to enter half of it or eighty acres and he was given a float or permission to enter eighty acres elsewhere. That permission was called a float. He could locate on that or any other surveyed Government land, whether it was in market or not, and that was called a float—floating pre-emption. A great deal of Chicago was entered in floats. Kinzie's addition and the land where I lived was entered or purchased by a float.

Q. When was the canal commenced?

A. Well, I think the commissioners were appointed and the bill, I think, passed in 1835 or 1836. Commissioners commenced their work in 1836.

Q. Was it afterward at any time arrested—stopped?

A. Yes, sir.

Q. As nearly as may be, when?

A. Well, after the panic of 1837 things got to be no better for a good many years. Finally the work on the canal was entirely suspended because they could get no more money. I don't know when it was entirely suspended; somewhere along, I should think, between 1845 and 1846, to the best of my recollection. I think they hobbled along for several years, but I don't recollect the year. There was nothing done for some time.

Q. Was there work done on it prior to this subsequent stoppage?

A. A great deal of work.

Q. When was active work recommenced or about when—1845 or before?

A. I should think after that. The statute would show or the canal records would show. It was when the State

made the transfer to the canal trustees, and then the canal trustees took hold of it and completed it.

Q. Was there any change in the plan of construction after the canal trustees took hold of it from what it had been theretofore?

A. I think not, substantially.

Q. Wasn't there a deep and a shallow construction?

A. The plan of construction was always to get the necessary quantity of water; but first they tried the shallow cut, it was called, because they had not got the money, but when they had got money enough they deepened it and had a deep cut, but I don't suppose that would be considered as a change of plan in so far as the money enabled them to do so. My recollection is that the plan of the canal commissioners was to make a deep cut on the level, but that after, in the difficulty of raising money, they concluded temporarily to make a more shallow cut, and that necessitated a new location.

Q. Was not the work as originally commenced and up to the time when it was arrested upon the idea of the deep cut?

242 A. That was the original plan, and the reason I recollect so well about it was that Mr. Talcott, who was an engineer, when Douglas and Stewart were running for Congress, in 1838, got the canal people at Lockport to vote against Douglas and for Stewart, because Stewart in the legislature had been for the deep cut and Douglas for the shallow cut, and that defeated Douglas.

Q. What I would like to know is whether they didn't actually commence work—when they began—upon the deep-cut plan.

A. That is my understanding.

Q. And whether or not the work that was done up to the time when the work upon the canal was arrested because of the want of funds was done on that basis?

A. I think so.

Cross-examination by Mr. Haynes:

Q. Speaking of that sand bar, referring to that again, as to your recollection as to the width of that sand bar, or, rather, how far out in the water from the shore line did it extend?

A. Well, there was quite a river, you know, between the

Evidence before
Master.

east line of fractional section 15 and the sand bar. I don't know of the width of the river, but I should suppose it must have been fifty or one hundred feet across when I came here, before any of it was filled up; I think the upper end was fifty feet across; it may not have been as much as that. The sand bar varied at different times. I don't know as I ever paced it, but I think at one time, about the time they were making these claims on it, there were several acres there—good many acres in this sand bar. It may have been between—I really can't say exactly, but I should think more likely it was over a thousand feet wide, and perhaps double that; I don't carry the exact size in my head.

Q. Your best impression about it?

A. My impression would be that at times, when I have been on it, it was over 1,000 feet wide at the upper end; blocks are about 400 feet. I should say that it must have been 1,000, and I don't know but what more than that.

Q. It was not so wide at the southern end?

A. That depended—sometimes it was very wide, but then at other times it was very narrow; a big storm would wash it away and carry it further down, or would wash the sand over into the old channel of the river, and finally filled up the old channel of the river in that way; so at the lower portion of it I suppose it was not more than fifty or 100 feet wide sometimes; but the width of that sand bar was always changing with the storms and with the current.

Direct examination resumed by Mr. Thompson:

Q. About what year was the old channel of the river filled up or made so that it was dry walking over the sand bar all the way?

A. I don't think there was ever fully the whole distance until after the sale of the Fort Dearborn lots that were sold in 1839, and at that sale my recollection is that this sand bar had practically disappeared, and sometimes it was nearly all water there; but in the old channel of the river the water was much deeper, so that my recollection would be that the old channel of the river never was filled up until artificially done by Mr. Walker and others who bought the land. I recollect of being down there a good many times while Mr. Walker was having this fight with the Illinois Central railroad, and I know he had teams hauling from the old sand bar, when the waves would come in and fill

up what had been the old channel of the river. My impression is that the old channel of the river never was entirely filled up or never entirely disappeared until artificially filled up—that is, at the upper end.

Q. When you first came here was the old channel of the river so filled with water that you could not walk across at any point between the present channel of the river and Madison street?

A. Oh, yes; I don't think you could walk across the river down by Handy's house then.

Q. I mean was it dry land at any point or all water?

A. It was all water the whole distance when I came here. You could walk across or wade across it down in the lower portion of it.

Q. Stagnant water, of course, or was there a stream?

A. Well, that depended, you know. When there would be a great storm—take a storm from the southeast—it would fill it full of water; then it would run out again, you know; leave quite a big lake, and then that would gradually run out; couldn't hardly say stagnant water, because the storms and wind frequently sent quite a current running there down by old John Wright's house. The winds gradually filled that up with sand, and, of course, it tended to dry up in the atmosphere, and the sand bar was so near the great body of the river the latter would raise the water not only down there to fill up the river, but I have known it to raise the water up higher in the town. I recollect one storm in which the first story of Kinzie's warehouses on the north side of the river all filled with water, and the water came up into Washington street, up west of Clark street, so that for a little while there was several feet of water in the street there.

Q. Did the United States or the State of Illinois build dams across to prevent the water running in the old channel?

A. It had been built by the United States when I came here. I don't know what had been done originally. I take it for granted that no individuals could have done it. It was quite a job. The water was deep and piles had to be driven.

By Mr. McCagg: I think it was adjudged in the Bates case that the United States built the piers and without any right; that they didn't get any authority—that is, the court so said.

Evidence before
Master.

Evidence before
Master.

A. I know the Government built the piers there. They did that since I came here, and my understanding of the case was always that they were the Government's. They were always called the Government piers to distinguish them.

244 My Mr. Thompson: You said your recollection was that the shore corresponded generally with the line marked down on the map of fractional section 15. Does that line coincide with the shore, independent of the sand bar, or does it, between Madison and Randolph street, include sand bar as shore?

A. That was entirely independent of the shore; no sand bar down there. That sand bar only extended down to Wright's or the commencement of section 15.

Q. I am asking as to the condition of what was between Madison and Randolph.

A. I was not testifying as to the condition by any map shown me of the bank north of Randolph street. I testified from recollection about that; but there has been no map shown to me of the land north of Madison street.

Q. What would be your recollection of the distance from the east line of Michigan avenue to the eastern edge of the sand bar in 1835, when you came here?

A. Well, of course, there was no Michigan avenue there then; but from the east line of Michigan avenue to the west line of the old channel of the river, when I came here, there must have been several hundred feet; don't know that I ever measured it. I know there was an old road there that used to be traveled sometimes, and I think Handy's house was a long distance from the road. At Randolph street it must have been 200 or 300 feet from what would be the east line of Michigan avenue to the lake, because it had been worn away a good deal, and when they surveyed it in 1839 they made the line of the lots, I think, there only about seventy-three feet or something less than 100 feet, and my recollection is that two-thirds or more of the land had been carried away by these storms before that survey was made. Possibly it may not have been more than 200 feet then, but my recollection would be that it was.

Cross-examination by Mr. Ayer:

Q. Were you ever in Chicago before you came here to reside in 1835?

A. I was never here till the 20th of September, 1835.

Q. Had any Government work been constructed at that time at or near the mouth of the Chicago river; if so, what?

A. There was the commencement of the piers. This pier was made across the mouth of the old channel of the river, and I don't distinctly recollect how much had been done on the north side, but my recollection is that some work had been done on both sides of the pier.

Q. You refer, do you not, to what is now known as the north pier on the north side of the Chicago river and the south pier on the south side?

A. Yes, sir.

Q. Did that work at that time occupy the same position as the present piers substantially?

245 A. Well, I should think it did as far as it had extended; it had not been extended very far into the lake.

Q. How was the Fort Dearborn reservation bounded on the east?

A. Bounded on the east by the old channel of the Chicago river.

Q. In 1835?

A. Yes, sir.

Q. Was there any land lying east of the old channel of the Chicago river?

A. There was this sand bar.

Q. If that was dry land, was not that a part of Fort Dearborn reservation?

A. Well, I didn't consider it so, and I don't think it was understood to be so. That was considered merely as a sand bar, but Col. Beaubien claimed it did, and he entered it as a pre-emptor, you know; he pre-empted the south fraction of section 10.

Q. This claim of Col. Beaubien's went into the courts, didn't it?

A. Yes, sir.

Q. And was tried and finally decided by the Supreme Court at Washington?

A. Yes, sir.

Q. And they decided it, as I remember, that this land was not subject to pre-emption because it was a part of Fort Dearborn reservation?

A. Yes, sir; that is so.

Q. Then, if there was any land lying east of this channel which you speak of it was a part of Fort Dearborn reservation?

Evidence before
Master.

A. Well, that is not my understanding of it, but Col. Beaubien claimed it to be so. My understanding was that fractional section 10 had been meandered, and that the meander was in the east side of the old channel of the river, and the reason why I recollect so distinctly about this matter is because there was a great deal of discussion here at one time about Kinzie's attempt to pre-empt it and the Nobles' attempt to pre-empt it and Walker's survey of the plat.

Q. None of those attempts succeeded, did they?

A. No.

Q. The Government did not permit any location to be made on that sand bar?

A. Government refused the survey. My recollection is the Government didn't approve of the survey, but before the matter was entirely disposed of the waters of Lake Michigan settled the whole matter.

Q. The Land Office at Washington rejected that survey?

A. That is my understanding.

Q. They didn't think it a valid survey of Government land?

A. No.

Q. In 1839, when the Fort Dearborn reservation was platted by Mr. Burchard, how was that Fort Dearborn addition bounded on the east?

246 A. By the lake.

Q. By the lake?

A. Yes, sir.

Q. Lots extended to the lake?

A. Yes, sir.

Q. Was there not a series of lots on the shore of the lake running from Randolph street to the river north, on the east side of what is now Michigan avenue?

A. Well, my recollection is that Mr. Burchard left the plat where the old fort was, all in one block; didn't divide that, but that west of the fort there were lots running to the river on River street.

Q. No; I am speaking now of Michigan avenue. Was there not a series of lots laid out on Michigan avenue, fronting west?

A. Yes, sir.

Q. From Randolph street north nearly to the river?

A. There was a series of lots from Randolph street to the

enclosure of the fort, fronting west, and that west front was on Michigan avenue and the east front on the lake. Evidence before Master.

Q. There was no land outside of those lots—east of those lots?

A. Not on the land; no, sir.

Q. Was there, in point of fact, in 1839?

A. I don't think there was, excepting that sand bar under water.

Q. But I mean any dry land.

A. No; never any dry land unless it had been a little when there was a big storm had thrown up some sand bar.

Q. You spoke of having constructed a fence along Michigan avenue somewhere between 1842 and 1845.

A. Yes, sir.

Q. Will you please state on which side of Michigan avenue you built that fence and from what point to what point?

A. It was extended from the northeast corner of the lots—southwest corner, you may say, of the lots fronting on Michigan avenue, in Fort Dearborn addition, leaving the same width that Mr. Burchard had laid out the street directly south down to fractional section 15.

Q. On which side of the street did you build this fence?

A. On the east side; but at the same time I enclosed what is called Dearborn park on the west side, so that I left the street between Randolph street and Washington street the same width that it was north of Randolph street; didn't build the fence on the west side any further than Washington street south to enclose the park. The city gave me the right to enclose a park in the Dearborn tract, which I enclosed on the west side of that part of the street, and gave me the right to enclose the east side or to extend that fence on the east side. That fence on the east side extended from the south side of the lot, because there was no Randolph street laid out east of the public ground. Randolph street, you know, came down merely to the public ground. On the map Randolph street doesn't come down to the lake, but that public ground was forever to remain free of buildings.

I got permission of the common council to fence up 247 Dearborn park, and the name Dearborn park came from me and Dearborn place immediately west of it, and the name of all the places about there, and I got permission at the same time to enclose the premises east of this line of Fort Dearborn addition and east of the ninety-foot line of fractional section 15.

Evidence before
Master.

Q. I understand you built a fence on the east side of Michigan avenue from what is now the north line of Randolph street south nearly to Park row?

A. East side of Michigan avenue as it is laid out now, but my understanding was and the idea of the council was that I might fence up so much of Michigan avenue as was over ninety feet wide.

Q. As I understand it, you built a fence along the east line of what is now Michigan avenue?

A. Yes, sir.

Q. As it is now laid out?

A. Yes, sir; as now occupied.

Q. Now, that was some eight or nine years or ten years after fractional section 15 was platted and subdivided, was it not?

A. Eight or nine years; platted in 1836.

Q. Now, did you build this fence along Michigan avenue at your own expense?

A. Well, I bossed the job, and I got subscriptions from Haddock, Williams, Capt. Bristol, and others who would give me money to help pay for it.

Q. How was the ground occupied, lying east of the fence between Randolph street and Park Row, after the fence was built?

A. It was merely public ground, and any person could walk in it as they pleased; not occupied for anything—only public ground. The understanding was it was to remain vacant of buildings.

Q. How far east did the fractional section 15 extend, as laid out by the canal commissioners?

A. How far east?

Q. Yes.

A. To the water.

Q. To the lake?

A. Yes, sir.

Q. Did or not the subdivision embrace all the land in that fractional section 15?

(Objected to by Mr. McCagg.)

A. When I say that that was the width I don't recollect very distinctly in my mind how much of sand there was which had accumulated on the east side. As I stated before, the action of the water and the winds, after the north pier was extended, accumulated sand, first all along from the end of section 10 down south, but as that extended further it

washed it away again, and I don't recollect how much sand there was there.

Q. But didn't the subdivision of fractional section 15 embrace the whole fractional section?

A. That is my understanding of it.

248 Q. You have seen the map which has been put in evidence here. Will you state whether the lots when they were sold by the canal commissioners were offered at public sale?

A. They were.

Q. And were they sold with reference to that map?

A. They were.

Q. Did you purchase?

A. I did at one sale, but I didn't purchase at the first sale. All the lots that were sold by the canal commissioners fronting on Michigan avenue were appraised at a vastly higher price, perhaps double to what they were on Wabash avenue, because they fronted on this lake.

Q. How did the lots sold compare with the lots sold fronting on Wabash avenue?

A. They sold for two or three, perhaps four, times as much as on Wabash avenue at the first sale.

Q. Why were they valued higher?

A. Because they fronted on the lake and upon this wide street.

Q. When did the shore, as you saw it in 1835 lying between Randolph and Twelfth streets, begin to wear away?

A. After the extension of the north pier.

Q. About what year?

A. I don't think I can exactly fix the year, but I was in the council in 1845 and we expended money then to protect—to build the pier and to protect Dearborn park—to protect the land in fractional section 10. I don't think any money was expended so early as that upon section 15, but from that time on the wear began to extend on section 15, so that when Mr. Gurnee was mayor the whole of Michigan avenue was in danger.

Q. What year was that?

A. I think he was mayor in 1851 or 1852, but I don't remember; that is easy enough to find by the records.

Q. Do you remember when the Illinois Central Railroad Company commenced its works?

A. Yes, sir. Well, Mr. Gurnee was mayor when the Il-

Evidence before
Master.

Evidence before
Master.

Illinois Central railroad came in here; think he was mayor two years and that this was the first year.

Q. Do you know what year that was?

A. Was it not 1852? I am not sure.

Q. I think so.

A. That is my impression.

Q. Can you tell me how much dry land there was on the east side of Michigan avenue, what is now laid out and used as Michigan avenue, between, say, Randolph street and Madison street?

A. Well, the shore had been worn away, more than half of it at that time, and the inside of the piles that had been put down, sheet piling, there were for vast distances puddles of water and the great bank that had fallen down was some distance west of the piling in very many places, if not in all places. I should suppose that what I would call Lake park half of it had been carried away.

Q. In 1852, at the time the Illinois Central commenced its works, was not nearly all the space lying east of what is now used and occupied as Michigan avenue covered with water?

A. Not all the space.

Q. I mean between Randolph street and Madison street?

A. Not all of it; I lived there then, and Mr. Stowell and myself had protected there about 120 feet; our protection extended about 120 or 130 feet from the east line of Michigan avenue, and south of that there had been put in protection by the city of various kinds. I shouldn't think it was nearly all. I should think the street—should think there—ought to have been 100 feet in width.

Q. East of the east line of the street?

A. Yes; I think it ought to be; don't say absolutely.

Q. You were not in the common council, were you, at the time the ordinance was passed providing for the location of the Illinois Central railroad within the city?

A. No; but I knew all about it. I was the attorney or had a retainer from the Michigan Central railroad, and I was anxious to have the roads come in and was working to bring the road in.

Q. Actively concerned in the passage of the ordinance?

A. Yes, sir.

Q. Will you state whether or not the railroad was built

upon a pile bridge between the line of what is called Park row and the line of Randolph street?

A. I think it was.

Q. Built across the open water of the lake, was it not?

A. Yes, sir.

Q. Have you any recollection about the depth of the water along the line of that road?

A. I don't know; don't know that I ever had any occasion to know it, but I know it was good boating inside of it.

Q. State whether or not the railroad company built a breakwater along the eastern line of its 200 feet right of way.

A. They did subsequently. I think when they first built it they did not and the waves used to break over it.

Q. They did afterwards?

A. Yes, sir.

Q. And have maintained it since?

A. I think so.

Q. Was any effort made by anybody before the railroad was located to reclaim any of the land along Michigan avenue south of Randolph street, which had been washed away by the waters of the lake?

A. Well, yes; when they drove the piling. Sheet piling was driven out—I don't know how many feet, but a good many—in some places beyond where the bank had been washed away. Sheet piling was driven out in the sand.

Q. How far was that line of piling from the east line of Michigan avenue as now laid out?

A. That would be merely an impression, but I should say when I lived at the corner of Michigan avenue and Congress street it was at least 200 feet to the piling.

250 Q. Well, now, will you state whether or not for many years after the railroad was constructed there was a narrow basin of water between the railroad and the shore, which was used for boating purposes?

A. My recollection is that it was so until the great fire.

Q. Of 1871?

A. Yes, sir.

Q. Was any effort made after the railroad was completed to reclaim any of the land which had been washed away by the action of the lake?

A. You mean south of Randolph street?

Q. South of Randolph street, prior to 1871, after the railroad was completed.

Evidence before
Master.

A. I think not, unless the railroad may have done it. There was—

Q. Except what the railroad did?

A. Persons by the name of Joy and Frisbie had some ice-houses down on Randolph street. They may have reclaimed a little for that purpose.

Q. Do you know, Mr. Scammon, whether the Illinois Central Railroad Company purchased the water lots along the shore of the lake north of Randolph street and between Randolph street and the river?

A. I know they purchased some of them and most of them.

Q. Do you know the fact they did purchase those lots?

A. Yes, sir; I know they did. They purchased of me and I know they purchased of others.

Q. Do you know whether, prior to 1851 and 1852, when the road was located, whether the Government had sold that portion of the Fort Dearborn reservation which had been reserved in 1839 from sale—that block along the river?

A. No; I don't recollect when the Government sold that. I had the impression that the hospital was there and they had reserved a good deal of that for the hospital; that is my impression.

By Mr. Trumbull: Sold long since.

A. I say up to that time. My recollection is that that land was sold by the Government a good while longer ago and was bought by Mr. Joy.

By Mr. Ayer:

Q. The Michigan Central railroad?

A. Yes, sir.

Q. I had in mind that block near the river. At the time Fort Dearborn addition was laid out the block was reserved, according to my recollection, along the river.

A. I think the hospital lot was a part of that block and the Government subsequently laid it out into lots and sold it, and then they sold it to the Michigan Central, and Mr. Joy bought the hospital property with the agreement that it was to be occupied by the Government until they built a new one.

Q. Do you know whether there was or not a piece
251 of land lying east of this hospital property, which the Illinois Central purchased from the Government about the time they were constructing their work?

(Objected to.)

A. I don't know about that.

Q. This process of erosion that you speak of that was going on south of Madison street along Michigan avenue after 1845—state whether that process was going on north of Madison street—between Madison street and the river.

A. It began up there.

Q. How early?

A. Well, it began up there before Fort Dearborn was platted. You will find that when Fort Dearborn was platted the south lot was seventy-three feet, perhaps, deep, and after it was bought it was cut down to not more than forty feet, until we protected it, and, just as they extended the pier, that changed the current and turned it farther down, but fractional section 15 took all the force of the current there for years, until they extended the pier out further, and when they did that the current was changed and struck with greater force further down, and the same process, you know, has been going on all the time clear down to Hyde park, excepting so far as, by the piers that the Illinois Central railroad or somebody else put in, the shore has been protected.

Q. In all cases where there has not been this artificial protection, there has been a natural process of erosion going on for many years?

A. I should say an artificial process produced by the building of the piers.

Q. No matter how it has been produced, the erosion has been carried on by the action of the water?

A. Yes, sir; every extension of the pier has changed the current.

Q. Of the north or south pier?

A. Yes; when I bought at 33d street of the Douglas heirs we had three-quarters of an acre outside of the line of the Illinois Central railroad, and when I sold it to the Illinois Central road, some years since, it required pretty calm weather to find any land outside.

Q. Do you know how far Michigan avenue was extended north at the time the Fort Dearborn addition was laid out by Mr. Burchard?

A. My impression is that it extended north to South Water street. It was laid out down to the street where the Richard house used to be.

Q. Was not Michigan avenue afterwards extended to the river?

A. It was.

Evidence before
Master.

Evidence before
Master.

Q. When was that?

A. That was when the Government subdivided that block and sold that ground; I don't recollect the year; probably twenty-five years ago; twenty or twenty-five; I don't recollect the year.

252 Q. Do you know whether the 200 feet occupied by the Illinois Central Railroad Company for a right of way between Park row and Randolph street was filled up with earth by the Illinois Central Railroad Company; if so, when?

A. Well, I know that a good deal of it was; I don't know—wasn't some of it filled up by the city after the fire of 1871—the debris of the fire?

Q. Do you know that?

A. I know that the Illinois Central has been at work filling that up for years and years; whether they did the whole of it or not I don't know.

Q. Do you know how the ground, which is now occupied as public ground, lying west of the railroad was filled up?

A. Well, a large portion of that was filled with debris from the city of Chicago when they rebuilt after the great fire.

Q. After the fire of 1871?

A. Yes, sir; I know there was a great deal of street cleaning that was dumped there by the city for years before the fire. The city must have filled that up very largely for years, for I recollect of making a great fuss about it, and the people along there trying to see if we couldn't stop it; afraid it would affect our health.

Q. Before you commenced building the fence you have spoken of along the east side of Michigan avenue you applied to the common council and got permission to build it?

A. Yes, sir.

Q. And you built it partly at your own expense and partly by the aid of subscriptions of your neighbors?

A. Yes, sir.

Q. And the ground lying between the fence and the lake was treated as public ground?

A. Yes, sir.

Q. Who built the north pier and the south pier at the mouth of the Chicago harbor?

A. The Government.

Q. Of the United States?

A. Yes, sir.

Q. How early do you say this sand bar of which you have spoken disappeared?

A. My impression is that it was the fall and winter of 1836, or 1836-'37. When the storms were over in the spring of 1837 there was no sand bar there; it was all gone, or substantially so.

Q. Saw nothing more of it afterwards?

A. At the upper end there may have been a little when there was a wind from the south.

Q. Was any effort made, until the Illinois Central Railroad Company located its road, to reclaim any portion of that sand bar in the lake?

A. Not that I ever heard of, unless you would consider that Mr. Walker and Mr. Collins claimed that their lots extended out alongside, and Mr. Walker may have scraped some of the old sand bar into the old channel of the river.

253 After the Illinois Central built Walker sold to them. Walker and Collins bought the old Beaubien property, and when the Illinois Central undertook to come in there on the right of way, then it was that all the parties having interest there undertook to protect their rights, and Collins, I know, and Walker were protecting and filling in the rear of their lots.

Q. They sold their lots, didn't they, to the Illinois Central Railroad Company?

A. That is my understanding.

Q. And their lots extended to the lake, didn't they, from Michigan avenue back to the lake?

A. That is my understanding. You asked me whether any attempt was made to reclaim. I think those gentlemen did attempt to reclaim; they had some 600 or 700 feet there.

Q. When was that attempt made?

A. They had been working—Mr. Collins had—all along after he bought the land, you know, to protect it. Every one of us went to work, from Randolph street up, to protect our rears, and Mr. Collins and Charles Walker and some of those people up there that were not so directly affected by the current, they not only undertook to protect their rears, but to extend it over where the old river was—go as far as they could. Where the old sand bar was they dredged, I think, from where the old sand bar was into the old channel of the river and filled it up.

Evidence before
Master.

Q. Can you tell me where this old channel of the river was? Can you point it out so we can now locate it?

A. Well, some one showed me an old map of Beaubien's addition, which I think is correct, and I had occasion to look at a survey that Mr. Talcott made at that time of George E. Walker's addition, and I am satisfied that those two maps are correct, but there has been so much filling in there I couldn't go down there now and point it out.

Q. Did it lay outside of or east of the present dry land, or was it inside? Where did it lay with reference, for instance, to Michigan avenue as it is now used as a street?

A. Well, I should think it lay east of it; it did lay east, the old channel, east of the whole of it; may have been right at the corner where the turn—it may have been at the head of Michigan avenue, but a great body of it was out far east of Michigan avenue. It was quite a river when I first came here.

Q. You say that it was subsequently filled up; that channel was filled up by somebody?

A. It was filled up, you know, by evaporation and by the action of the winds. You know these sands, all along the lake shore. One wave will throw them up; the sand will be dry on the top. Another storm will blow that sand into the channel of the river, and that channel of the river was gradually filled up in that way.

Q. Where was that channel thus filled up?

A. That channel was east of the old fort. If you have ever seen a plat of old Fort Dearborn addition you will see there was quite a distance on the east side of the fort 254 leading down to the river, and when I came here there was water enough in that river, for people in the fort used to bathe in the old channel of the river.

Q. Was this channel east or west of the ground now occupied by the Illinois Central Railroad Company and the Michigan Central as a passenger station?

A. Well, I should think the passenger station of the Illinois Central was built in the bed of the old river, a portion of it. I mean that the east portion of it may occupy a part of the old channel.

Q. In the bed of the old river?

A. I should think so; yes, sir; that would be my impression, without measuring it; but I am perfectly satisfied, from knowledge of the ground and from knowing about the making of those maps and the surveys, that that land and

the situation of the river is correctly laid down in Talcott's map and in what is called the Beaubien and Breese map.

Q. I understand when you came here this old channel was not a navigable stream?

A. It was cut off; couldn't be; but then it was deep enough.

Q. It was cut off at the upper end?

A. Yes, sir.

Q. By the Government pier?

A. Yes, sir.

Q. Built by the Government?

A. Yes, sir.

Q. Then, of course, boats couldn't proceed from the lake up that river?

A. Oh, no.

Q. Up that stream?

A. It was not navigable unless somebody may have had a scow or boat in it.

Q. How was this water you speak of, which lay in the channel of the river, supplied; come from the lake?

A. Yes, sir. Water, you know, was thrown over the sand bar whenever there was a big storm; over the lower end of the sand bar; but there was the great body of the lake, and was continually coming through the pier from the river. The pier didn't prevent the water soaking through into the river.

Q. Don't you know the Government piers—the north and south piers—built by the Government were built at the mouth of the river as it was surveyed in the original Government survey in 1822?

A. I don't know that, but I know they were built where the mouth of the river was when they were built, but I never have made any examination of the other point you make.

Q. They were built where the mouth of the river was at the time they were constructed?

A. Yes, sir; and in the trial of the Jones and Johnson case we ascertained exactly where it was built.

Q. The river left its old channel; not always in the same place?

A. I think the main river there was quite deep; I think that portion of it immediately east of the old fort; don't think that part of it changed excepting so far as when there would be a freshet in the spring the water would come down there with great force, and of course wore

Evidence before
Master.

out the east bank of the sand bar; and then when the winds and waves came when the sand was blown over it, it would fill up again.

Q. In 1835, when you came to Chicago, you came on a steamboat?

A. Yes, sir.

Q. Where did you land?

A. We came at anchor opposite the mouth of the proposed harbor, and we came ashore in a yawl-boat that crossed over and through a little passage through the sand bar and rowed up and landed under the bridge at Dearborn street, built by a Mr. Norton, which had a sign on it, Nelson Norton, master builder.

Q. Did you enter harbor between the north and south pier?

A. We did.

Q. Well, now, was that the entrance to the harbor at that time?

A. Yes, sir; so far as there was any harbor at all.

Q. And after 1835 was there any other entrance to the Chicago harbor than that?

A. No, sir.

By Mr. Trumbull: When you built your fence, there was no marked line east on Michigan avenue, was there? Was there any designated line?

A. No; there was the high bank, and to the east of that high bank there was quite a sand spit.

Q. You said you built a fence from Randolph street south down to Park row?

A. Yes, sir.

Q. You built it with the assistance of others, and that it was public ground lying east of it?

A. Yes, sir.

Q. Was there any designated line there?

A. This west line.

Q. Of Michigan avenue?

A. Yes, sir.

Q. Was there any designated east line?

A. No, excepting so far as I made it by measuring it when I built the fence.

Q. You just made a fence at a certain distance from the west line?

A. Yes, sir.

Q. But there was no line designated to make the fence by?

A. Nothing at all there; entirely voluntary.

Q. You thought that was a good place to make a fence?

A. I wanted to preserve that land for a public park; you know, I didn't want it to be a dumping ground. It was a nice, beautiful park a good many years. Michigan avenue was the pride of Chicago, and if the waves had kept away and the Illinois Central railroad had kept away I suppose it would have been the finest residence portion of Chicago to-day; but between the winds and the waves and the Illinois Central it is pretty much confiscated.

256 Q. But without the Illinois Central or somebody else to protect it there would not have been anything there?

A. Would be all washed away, every portion of it, if it had not been protected; don't know how far the waves would have come up.

Redirect examination:

By Mr. McCagg: I understood you to say that between the east line of Michigan avenue and the railroad track there was a basin of water about the time the piles were driven for the track?

A. Yes, sir.

Q. Was there or not a very large or very considerable tract of land between the east side of Michigan avenue and the ground occupied for the track by the Illinois Central railroad, north of Park row?

A. Yes; very large tract; but I think that these storms had broken down the bank, and that if you take the whole fractional section 15 I think nearly half of it had been carried away before the Illinois Central railroad came in.

By Mr. Ayer: You mean half of what is now the public ground?

A. No; half of the land—what was there when the plat of 1836 was made.

Q. You mean half of the ground lying east of Michigan avenue?

A. No; I mean half of the ground lying east of the east line of the lots laid out in fractional section 15—between that and the lake.

Evidence before
Master.

By Mr. McCagg: And half of the ground at that time remained there?

A. Yes, sir.

By Mr. Thompson: I understand you to say that the part of the ground east of Michigan avenue, that the first washed away was the north portion, next to the pier?

A. Not exactly next to the pier, but north of Madison street. The north pier, or the pier as the piles were extended out into the lake to the east, the current of water struck with greater force against the east shore, but some distance south from the pier, say south of Randolph street but north of Madison street. The upper portion, the shore north of Madison street, was less affected as it neared the pier; the current was in a southwesterly direction, and of course it left an eddy of still water in that angle, but when there would be a storm from the southeast that would affect the shore nearly up to the pier; but the ordinary current—the current that was created by the extension of the pier—ran in a southwesterly direction.

Q. Then, as the piers were extended out farther to the east, the abrasion would take place farther south?

A. Yes, sir.

Q. Is it not a fact that substantially all the abrasion by which you say one-half of the ground east of Michigan avenue was finally taken away was caused by the construction of those piers?

A. I think the whole of it was. The land had been accumulating all along; the same thing that you notice
257 there on the north side all that great accumulation of land from the sand. That same process was going on south, but not, of course, so extensively as north of the pier; but I traveled, for instance, in 1835 and 1836 all the way, pretty much, on the sand from Chicago to Michigan City. There was a sand spit—

Q. It is a fact, is it not, as shown by experience on the shore of the lake, in Chicago and vicinity, that the construction of a pier will cause an abrasion of the land south of it if the pier extends to the east and an accumulation of land at the north?

A. That is generally so, but I have observed in some places along the line of the Illinois Central railroad that there is a double action there; it has carried away the land on both sides of the pier in some places. Some places accumulated on the south of the pier and washed north of it; I suppose that that

is caused by the current breaking against some obstacle that has turned it in the other direction.

Evidence before
Master.

Q. This wearing away of the shore was not a gradual, imperceptible wearing away, but became apparent when the storms came?

A. Rather too perceptible to us in storms.

Q. How much in width of shore have you seen going at one time—that is, in one storm—twenty, thirty, or forty feet?

A. Yes, sir; I think so. I think that great storm that frightened Mr. Gurnee so much came up very near Michigan avenue; and, if so, probably fifty or sixty feet went away in that storm.

Q. That was the process of all this abrasion; went away in chunks rather than by gradual wearing?

A. It was double. This current that I speak of ran along, you know, by the edge of the water and wore away, you may say, the foundation of the bank. It gradually carried off this sand. It undermined the bank there when there would come a great storm; it would wash up against it and cause the bank to fall down, as it does on the Missouri river; fall down sometimes five feet, and sometimes ten, and sometimes thirty feet in width at a time.

Q. You stated, in answer to a question by Mr. Ayer, that there had been no particular attempt at reclamation of this land washed away. Was there not prior to 1871 more or less of an occupation of the ground east of the east line of Michigan avenue by the public or by the city of Chicago in the way of using it for—

A. I didn't state there had been no attempt to reclaim the land; I said no attempt to reclaim the sand spit. On the contrary, I stated that the individuals on land north of Randolph street and the city authorities undertook to protect the shore and did protect it. They built protections which were called sad-irons. They were in the shape of the iron that is used for ironing—sad-irons; they were built out there. And we consulted, I recollect, at one time Col. Abbott, chief of the topographical engineers here. There was a great effort made by the people living in that part of the town and the authorities to protect the shore, but these storms had been so violent that those of us that lived there were very glad—I was, 258 for one—to have the Illinois Central Railroad Company come in and make it certain that the whole street wouldn't go and my house with it.

Evidence before
Master.

Q. After the construction of the breakwater by the Illinois Central didn't the city or the people living in the city use that as a receptacle for rubbish of various kinds?

A. Yes; not only that, but the city had large quantities of earth hauled there and undertook to lay it out in parterres, with roads, walks, streams, and fountains.

Q. Prior to the fire of 1871?

A. Yes, sir.

Q. Do you know of any act, either in your capacity as alderman or as a citizen of Chicago, for the abandonment of that ground by the public?

A. Don't think they ever abandoned it; no, sir.

Recross-examination by Mr. Ayer:

Q. How was it with regard to the ground not occupied by the Illinois Central railroad tracks between Park row and Randolph street—ever any attempt made to reclaim that by the city or by any Government authority to reclaim that land from the lake before the Illinois Central took possession of it?

A. The upper portion of it, I should think, they never attempted to protect.

Q. No; I don't mean to protect. After the ground had been washed away, if it had been washed away, which is now included within the 200 feet occupied by the Illinois Central as the right of way between Park row and Randolph street was there any attempt made by the city or any Government authority or anybody else to reclaim that ground—restore that ground—before the Illinois Central took possession?

A. I never heard of any such attempt.

COMPLAINANT'S EXHIBIT STIPULATION NO. 1.

United States of America, Northern District of Illinois,
260 ss:

In the Circuit Court of the United States in and for the
Northern District of Illinois.

The People of the State of Illinois

vs.

The Illinois Central Railroad Company et al.

It is hereby stipulated and agreed that the papers hereunto annexed may be read in evidence on the hearing of this

261 cause, subject to all objections to their relevancy. The defendant, waiving all objections to the mode of proof, insists only that the facts stated are immaterial and irrelevant.

GEO. HUNT, Att'y Gen.,
By THOMPSON & McCAGG.
B. F. AYER,
For Illinois Cent. R. R. Co.
M. W. FULLER,
For City of Chicago.

Taken from the report recently forwarded by Major Handbury, engineer in charge, to the chief of engineers.

Statement of Vessels Entered and Cleared (Foreign and Coastwise) and the Aggregate Receipts at Certain Ports of the United States for the Year Ending June 30, 1886.

(From the Annual Report of the Supervising Special Agent to the Secretary of the Treasury, page 9.)

Ports of—	No. of Vessels arrived.			No. of Vessels cleared.			Joint total of arrivals and clearances.	Aggregate receipts.
	Foreign.	Coastwise.	Total.	Foreign.	Coastwise.	Total.		
Baltimore.....	566	1,515	2,081	625	1,664	2,289	4,370	\$2,601,440
Boston.....	2,622	749	3,371	2,559	878	3,437	6,818	21,079,511
New Orleans.....	744	264	1,008	707	271	978	1,986	1,361,877
New York.....	5,783	1,989	7,772	5,219	3,196	8,415	16,187	133,472,063
Philadelphia.....	1,341	743	2,084	1,013	1,318	2,331	4,415	14,661,896
Portland & Falmouth.....	307	358	665	417	357	774	1,439	840,598
San Francisco.....	759	198	957	771	441	1,212	2,169	5,990,632
Total.....	12,122	5,856	17,978	11,311	8,125	19,436	37,414	180,007,757
Chicago.....	155	10,794	10,949	377	10,770	11,147	22,096	4,099,550

Comparative Statement of Vessels Entered and Cleared (Foreign and Coastwise) at Certain Ports of the United States for the Year Ending June 30, 1886.

I.

Ports of—	Total arrivals.	Total clearances.	Joint Total.
Baltimore.....	2,081	2,289	4,370
Boston.....	3,371	3,437	6,848
New Orleans.....	1,008	978	1,986
Philadelphia.....	2,084	2,331	4,415
Portland and Falmouth.....	665	774	1,439
San Francisco.....	957	1,212	2,169
Total.....	10,206	11,021	21,227
Chicago.....			22,096

Evidence before
Master. 262

II.

Ports of—	Total arrivals.	Total clearances.	Joint total.
New York.....	7,772	8,415	16,187
New Orleans.....	1,008	978	1,986
Portland and Falmouth.....	665	774	1,439
San Francisco.....	957	1,212	2,169
Total.....	10,402	11,379	21,781
Chicago.....			22,096

III.

New York.....	7,772	8,415	16,187
Baltimore.....	2,081	2,289	4,370
Portland and Falmouth.....	665	774	1,439
Total.....	10,518	11,478	21,996
Chicago.....			22,096

IV.

Ports of—	Total arrivals.	Total clearances.	Joint total.
New York.....	7,772	8,415	16,187
Philadelphia.....	2,087	2,331	4,418
Portland and Falmouth.....	665	774	1,439
Total.....	10,524	11,520	22,044
Chicago.....			22,096

V.

Ports of—	Coastwise only.		Joint total.
	Total arrivals.	Total clearances.	
Baltimore.....	1,515	1,664	3,179
Boston.....	789	878	1,667
New Orleans.....	264	271	535
New York.....	1,989	3,196	5,185
Philadelphia.....	743	1,318	2,061
Portland and Falmouth.....	358	357	715
San Francisco.....	198	441	639
Total.....	5,856	8,125	13,981
Chicago.....	10,794	10,770	21,564

263 Statement of Number and Tonnage of Vessels Entered and Cleared at the Custom-House, Port of Chicago, During the Year Ending December 31, 1886.

Port of Chicago	Coastwise trade.				Foreign trade.								Total.
	Steam vessels.		Sail vessels.		United States vessels.				Foreign vessels.				
					Steam.		Sail.		Steam.		Sail.		
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	
Entered	3,930	1,961,527	6,066	1,500,413	7	1,448	131	39,715	51	22,467	55	20,739	10,180
Cleared	3,965	1,986,153	5,795	1,437,822	32	13,329	359	111,093	51	22,376	52	19,403	10,254
Total..	7,895	3,947,680	11,861	2,938,235	39	14,777	490	150,808	102	44,843	107	40,142	20,434
													3,546,399
													3,590,176
													7,136,485

Custom-House, Chicago, Ill., Jan. 13th, 1887.

ANTHONY F. SEEBERGER,
Collector of Customs.Evidence before
Master.

Evidence before
Master.

264 Attached to the foregoing exhibit is a sketch of Chicago harbor, taken from an annual report upon the improvement of the harbors of Chicago and Calumet, etc., in charge of Capt. G. I. Lydecker, being appendix B B of the annual report of the chief of engineers for 1879, showing depth of water at various points in Chicago harbor, which map is omitted by stipulation of counsel.

COMPLAINANT'S EXHIBIT STIPULATION NO. 3.

266 In the Circuit Court of the United States in and for the Northern District of Illinois.

People ex Rel. George Hunt, Att'y General,

vs.

Illinois Central Railroad Company et al.

It is stipulated and agreed by counsel for the respective parties that the following tables and statement may be
267 read in evidence at the hearing of said case as showing the facts respectively indicated therein, subject to all objections as to relevancy or legal effect, the Illinois Central Railroad Company objecting to the same as immaterial and irrelevant:

Travel Across Madison-Street Bridge, Chicago, June 18, 1881.

	Foot passengers.	Horse cars.	Other vehicles.
Going east	6,800	700	2,260
Going west	7,250	760	1,945

Bridge open 45 times; vessels passed, steam and sail, 82. Randolph-street bridge, being broken, was not used this day.

Travel Across Clark-Street Bridge, Chicago, June 16, 1881, from 6 o'clock a. m. until 7 o'clock p. m.

	Foot passengers.	Horse cars.	Other vehicles.
Going south	8,820	410	1,955
Going north	7,079	394	1,806

Bridge open 56 times; vessels passed, steam and sail, 114.

Travel Across Wells-Street Bridge, Chicago, April 18, 1882, Evidence before
from 5:30 a. m. to 7 p. m. Master.

	Pedestrians.	Vehicles.	Street cars and loaded buses.
Going south	10,260	1,739	233

Bridge opened 28 times; vessels passed, steam and sail, 41.

	Pedestrians.	Vehicles.	Street cars and loaded buses.
Going north	10,500	2,416	195

Total number of pedestrians detained by open bridge, going south, 1,551; vehicles, 385.

Total number of pedestrians detained by open bridge, going north, 1,350.

Travel Across Randolph-Street Bridge, Chicago, April 21, 1882, from 5:30 a. m. to 7 p. m.

	Pedestrians.	Vehicles.	Street cars.
Going east	4,626	1,234	643

Bridge opened 40 times; vessels passed, steam and sail, 75.

	Pedestrians.	Vehicles.	Street cars.
Going west	5,485	1,865	796

Passengers Carried on Horse Cars Over Clark-Street Bridge April 24, 1882.

Going south between 6:30 and 7 a. m.	1,400
Going north between 5:30 and 6:30 p. m.	2,278

268 Passengers Carried on Horse Cars Over State-Street Bridge April 25, 1882.

Going south between 6:30 and 7 a. m.	180
Going north between 5:30 and 6:30 p. m.	669

Number of Horse Cars Crossing Madison-Street Bridge May 1, 1882.

Going east from 6 to 7 a. m.	51
Going west from 5:30 to 6:30 p. m.	84

Evidence before
Master.

Number of Passengers Carried Across Madison-Street Bridge
May 1, 1882, in Horse Cars.

Going east between 6 and 7 a. m.	1,326
Going west between 5:30 and 6:30 p. m.	3,549

Street cars run across Lake, Randolph, Madison, Adams,
Van Buren, 12th, and 22d street bridges; also across State,
Clark, and Wells street bridges.

B. F. AYER,

For Ills. Cen. R. R. Co.

WILLIAMS & THOMPSON,

For Complainant.

M. W. FULLER, For City.

282 DEFENDANT ILLINOIS CENTRAL RAILROAD
COMPANY'S EXHIBIT STIPULATION NO. 8.

In the Circuit Court of the United States in and for the
Northern District of Illinois.

The People of the State of Illinois ex Rel.

George Hunt, Attorney General,

vs.

Illinois Central Railroad Company et al.

} In Equity.

Affidavit of Col. R. B. Mason.

Roswell B. Mason, of Chicago, Cook county, Illinois, be-
ing duly sworn, deposes and says that he was appointed chief
engineer of the Illinois Central Railroad Company in March,
1851, and came to Chicago to reside in May following.

By an ordinance of the common council of Chicago, passed
June 14, 1852, permission was granted to the Illinois Central
Railroad Company to enter upon and use in perpetuity for its
line of road and works necessary to protect the same from the
lake a strip of ground three hundred feet wide, extending
from the southern boundary (near 12th street) of the open

space on or near the margin of Lake Michigan, in front of fractional sections fifteen and ten, to the northerly line of Randolph street, the inner or west line of said strip to be not less than four hundred feet east from the west line of Michigan avenue and parallel thereto. The space thus granted to the railroad company, with the exception of a few feet at the south end, at or near the place now called Park row, was at that time covered by the waters of the open lake. A double-track railway was soon afterwards commenced along this right of way, and also an outer breakwater to protect it from the action of the lake. The railroad was built upon a pile bridge over the waters of the lake, the center of the inner or westerly track being for the whole distance four hundred and thirty-eight feet east of the west line of Michigan avenue and parallel thereto. The breakwater was parallel to the track and about six hundred feet east of the west line of Michigan avenue. The distance from the west line of the avenue to the margin of the lake varied at different points from four hundred feet to about ninety feet, as shown by the following table, compiled from authentic maps, plats, and surveys made for the railroad company in or about the year 1852.

Evidence before
Master.

Distances in a direct east and west course from the west line of Michigan avenue at the points named to the margin of the open lake in the year 1852:

At Park row, a little over.....	400	feet.
" Harmon court	300	"
" Eldridge court	250	"
" Peck court	210	"
At Hubbard court.....	175	"
283 " Harrison St.	160	"
" Congress St.	150	"
At Van Buren St.....	130	"
" Jackson St.	112	"
" Adams St.	100	"
" Monroe St., about.....	90	"
" Madison St., about.....	90	"
" Washington St.	112	1-2 "
" Randolph St.	112	1-2 "

Evidence before
Master.

The depth of the lake along the line of the piling on which the tracks were laid was very nearly as follows:

At Park row	2 1-2	feet.
" Harmon court	5	"
" Eldridge court	6 1-2	"
" Peck court	8	"
" Hubbard court	8 1-2	"
" Harrison St.	8	"
" Congress St.	8 1-2	"
" Van Buren St.	9	"
" Monroe St.	9 1-2	"
" Madison St.	9	"

The passenger depot was built north of Randolph street, its dimensions being 505 feet in length by 167 feet in width. The west side of the depot was about 250 feet east of the west line of Michigan avenue and the south end of it 240 feet north of the north line of Randolph street. The south half of the site was, in 1852, covered with the water of the lake, in some places to the depth of three or four feet. All the space between the shore line of 1836 shown by Talcott's survey, so called, and the shore line as above described was in like manner submerged, and south of Randolph street there was no land visible at any stage of the lake east of the line of the original Government survey of 1821. North of Lake street an accretion had apparently formed in front of the shore line of 1821, consisting of sand which had been washed in by the action of the lake. A portion of this accretion was in front of the property then known as the Fort Dearborn military reservation and a portion in front of blocks 5 and 6 of Fort Dearborn addition to Chicago. There was also a slight accretion a few feet wide in front of the northerly portion of block 11 of the same addition, but this was at times submerged, depending upon the height, which was variable, of the waters of the lake. Where the Illinois Central freight depot now stands the site was then covered with water, except a small triangular piece of ground in the northwest corner, containing, perhaps, five or six hundred square feet.

Since the construction of the railroad the whole space north of Park row and west of the breakwater, formerly cov-

ered by the lake, has been filled with earth by the railroad company or by the city, the railroad company filling its right of way and the city the remainder.

Evidence before
Master.

284 During the same period a considerable quantity of land lying east of the original breakwater and between Madison street and the north line of Randolph street produced has been covered by the railroad company from the lake in the same way, and several acres lying east of the shore line of 1852 and north of Randolph street have been similarly reclaimed.

A map of Chicago and vicinity, purporting to have been compiled by Rees & Rucker, land agents, and drawn by William Clogher, 1849, published by J. H. Hutawa, lithographer, map publishing company, North Second street, 45, St. Louis, Missouri, has been exhibited to me by counsel for defendant, which I think exhibits with substantial accuracy the general condition of the lake front at Chicago between the river and what is now 22d street at the time I first came to Chicago, in 1851.

I have also examined a large map of the city of Chicago, purporting to have been published in 1853 by Henry Hart, civil engineer and architect, 140 Pearl street, New York, which has been shown to me by counsel for the defendant. I recognize this map as authentic, and the delineation there made of the condition of the lake front between the river and 22d street accords with my recollection of its actual condition at the time the map was published.

I have also examined a map of Chicago and environs, purporting to have been compiled and published by Rufus Blanchard, 146 Lake street, Chicago, Illinois, in 1869. This map shows a considerable body of water lying between the railroad and Michigan avenue—between Randolph street and the south end of Lake park. I think it exhibits with substantial accuracy the condition of things along the shore between the river and 22d street at the time the map purports to have been published.

Evidence before
Master.

I have also examined a colored print or lithograph containing a view of the Illinois Central and Michigan Central depot from the corner of Madison street and Michigan avenue, purporting to have been drawn from nature by E. Whitefield and lithographed and printed by Charles Shober, 109 Lake street, Chicago, published by E. Whitefield at D. B. Cook & Co.'s, Lake street, Chicago, and to have been entered according to act of Congress in the year 1860 by E. Whitefield in the clerk's office of the district court for the northern district of Illinois; also another print or lithograph, containing a view of Michigan terrace on Michigan avenue, looking towards the Central depot, purporting to have been drawn by E. Whitefield, and lithographed and printed by Charles Shober, Chicago, published by E. Whitefield, 52 La Salle street, Chicago, and entered according to act of Congress in the year 1863 by E. Whitefield in the clerk's office of the district court for the northern district of Illinois. These prints are recognized by me as authentic publications, and they exhibit, I think, the actual condition of things in 1860 and 1863 along those parts of the lake front which the views purport to include with substantial accuracy.

R. B. MASON,

285 Subscribed and sworn to before me this second day of May, A. D. 1887.

[John Dunn, Notary Public, Chicago, Cook Co., Ill.]

JOHN DUNN,
Notary Public.

It is hereby stipulated and agreed that the foregoing affidavit may be put in evidence in the above-entitled cause by the defendant and shall have the same force and effect as if the said Roswell B. Mason had personally appeared before the master and testified to the facts therein stated.

B. F. AYER,

For Ills. Cen. R. R. Co.

GEO. HUNT, Att'y Gen.

Per McCAGG & THOMPSON.

M. W. FULLER,

For the City of Chicago.

May 2, 1887.

Evidence before
Master.

JONATHAN YOUNG SCAMMON, being first duly sworn, testified on behalf of defendant Illinois Central Railroad Company as follows:

By Mr. Ayer: You have previously testified in this case, have you not?

A. I have.

Q. Will you state whether you did at any time reside on what was called Michigan terrace on Michigan avenue between Van Buren street and Congress street?

A. I resided there for a good many years, from 1861 on to the great fire, and before that on Congress street, on the same lot.

Q. Will you examine the map now shown you, styled in the margin map of Chicago and vicinity, compiled by Rees and Rucker, land agents, drawn by William Clogher, 1849, and state if you have ever seen that map before or one similar to it—another copy of the same.

286 A. I think I know the map very well. Mr. Rucker was a clerk for me and I have seen this or other copies of it a great many times. I know the map very well.

Q. Will you please examine that portion of the map on which is delineated the shore of the lake from the river on the north to what is now 22d street on the south, and state if that is substantially an accurate representation of the actual condition of things along that shore at the time the map was published in 1849, according to your recollection?

A. I think it is substantially correct as the lake was then when this map was published, not as it was before.

By Mr. Ayer: By consent of counsel a copy of that portion of the map to which the witness' attention has been called will be substituted for the original and marked "Defendant Illinois Central Railroad Company's Exhibit Map Number 3."

Q. Will you please examine the map now shown you, styled in the margin "city of Chicago, Cook Co., Illinois, 1853, surveyed and published by Henry Hart, civil engineer and architect, 140 Pearl street, New York," and state whether you recognize this map as an authentic map published at or about the time it purports to have been published?

A. I think I recognize this map and these surveys on it. This map was purchased and seen in different offices in Chi-

Evidence before
Master.

cago about the time it was published, and I think I had a copy of it myself or one that was very nearly like it. I recognize the map with the old court-house on it.

Q. I wish to call your attention to that portion of the lake front which is delineated on this map lying between the river and what is called 22d street, and will ask you whether it is a fair representation of the actual condition of things along that shore at the time the map purports to have been published.

A. What is laid down on this map as South street would be 22d street. The shore had worn off a great deal there at that time.

By Mr. Ayer: I have had a copy made of that portion of the map to which I have called the attention of the witness, which, by consent of counsel, will be substituted for the original, and it will be marked "Defendant Illinois Central Railroad Company's Exhibit Map Number 4."

Continuation of answer: This map represents the shore. It does not represent the enclosures. There are no enclosures here upon the map, but the shore line is properly represented as it was at that time. I think that part of the map that is north of Lake street is not laid down as I recollect it.

Q. What blocks do you particularly refer to?

A. I think that blocks 5 and 6 are wider here than I recollect that they were.

Q. Blocks 5 and 6 near the river?

A. On the lake; 5 and 6, Fort Dearborn addition to Chicago. This is Fort Dearborn addition, all north of Madison street. I think lots 5 and 6 are laid down here broader than they were at that time; may, however, have been filled up, because I recollect Collins and Charlie Walker were making land up there; but I don't recollect that they had it as large as it is here, although it may have been so. I think that this land that is laid down here—Illinois Central and Michigan Central depots—I think that is designed to show where they should be rather than where they were then.

Q. I will call your attention more particularly to that portion of the lake shore lying south of Randolph street and north of what is now 16th street?

A. I think that is very fairly represented and probably correctly represented upon this map. I recollect very well how this lower block at the end of what is called the Lake

park was worn off, and I should think to the extent that it is represented there and further down on the map, you haven't got it here on the copy, to 18th street, where I laid out an addition to the town. I know the representation is about correct.

Evidence before
Master.

Q. I now call your attention to a map of the city of Chicago, styled in the margin map of Chicago and environs, compiled and published by Rufus Blanchard, 146 Lake street, Chicago, Illinois, 1869, showing a considerable space covered with water lying between the railroad and Michigan avenue. Will you examine the map and state if you recognize it as an authentic map of the city, published about the time it purports to have been?

A. I should think the general representation was correct. I don't know what the scale is and about the distance, but this body of water west of the Illinois Central railroad track existed there, but the extent of it I can't tell very well by this map. The map is so small, and I don't know what the scale is. It seems to me that the body of the water west of the Illinois Central and Michigan Central railroad was a large body of water, but it appears to me that this is a little wider than I supposed it was.

Q. Do you remember the map?

A. I think I do; yes, I have seen this map often, but Mr. Blanchard has represented all these streets as running down to the water. When I built that fence on the east side of what is now Michigan avenue it was all enclosed, so that there were only a few streets that did go down to the water; for instance, Congress street didn't go to the water. He has got it laid down here as going to the water, and he has got the blocks laid off here east of Michigan avenue; there were no blocks east of Michigan avenue. Michigan avenue extended from the west side of Michigan avenue to the lake, excepting so far as it was enclosed in a fence which I built with the permission of the city many years before.

Q. None of those streets ran down to the water, did they, Mr. Scammon—those transverse streets?

A. I don't think—possibly one of them may have been opened to the water, but otherwise they did not. There was not one single street that went any further than the west side of Michigan avenue. All east of the west side of Michigan avenue was occupied by the street. What was called
288 Lake park was east of the fence that I built. In so far as that is concerned, this map is not correct. He has

Evidence before
Master.

got Lake park laid down here as only extending up to Peck court, while Lake park extended clear up to Madison street, to the north line of Madison street; then it went with Dearborn park, immediately north of us. Lake park is not properly laid down here. He only makes Lake park extend from Park row up to Peck court, whereas it extended, in fact, up to Madison street, and then connected with North Lake park and extended up to Randolph street. I think they called that Fort Dearborn park.

Q. But do you remember, as I understand it, that there was a considerable body of water lying between Michigan avenue and the Illinois Central railroad at that time, as shown on the map, though you can't state certainly in regard to the relative proportions?

A. Yes, sir; I know there was a large body of water up there, up to the time of the great fire, between the Illinois Central railroad and Lake park.

By Mr. Ayer: I have prepared a copy of that portion of this map which has been referred to by the witness, which is now proposed to be substituted, with the consent of counsel, for the original and marked "Defendant Illinois Central Railroad Company's Exhibit Map Number 5."

Q. I desire to call your attention to a print or a lithograph containing a view of the Illinois and Michigan Central depot, purporting to have been drawn from nature by E. Whitefield and lithographed and printed by Charles Schober, 1091 Lake street, Chicago; entered according to act of Congress in the year 1860, by E. Whitefield, in the clerk's office of the district court for the northern district of Illinois. Will you please look at this print and state whether it is, according to your recollection, an accurate representation of that portion of the lake shore pretended to be exhibited upon it as you look north from the corner of Madison street and Michigan avenue?

A. I have seen this Whitefield view. I knew it in those times. I should say that it is generally correctly represented, but, as they say, embellished by the artist. That (indicating) was the remains of one of the old flat-irons that we put in to protect the lake shore. There is no scale to it. I don't know if this here is only sixty-six feet wide, this street, or ninety feet below Madison street. I should say the distance might be substantially correct. I should say it was a litho-

graph that you might say gave a fair representation, rather embellished by the artist.

Evidence before
Master.

By Mr. Ayer: By consent of the counsel I will offer a photograph of the same size as the original of that print in evidence, in place of the original, and it will be marked "Defendant Illinois Central Railroad Company's Exhibit Map Number 6."

Q. I now call the attention of the witness to another print styled Michigan terrace, Michigan avenue, looking towards the Central depot, purporting to have been drawn from nature by E. Whitefield, lithographed and printed by

Charles Schober, Chicago, published by E. Whitefield, 280 52 La Salle street, Chicago, and entered according to act of Congress in the year 1863, by E. Whitefield, in the clerk's office of the district court of the northern district of Illinois. Will you state whether that print is fairly true?

A. Yes, sir; I should know this very well. I took a number of copies of this of Mr. Whitefield when he made it, and it has my old residence and garden on it. The only criticism to be made upon this is that in the perspective here he has this land a great deal wider than it was.

Q. What land do you refer to?

A. The land in Lake park as represented here at the lower end of the map, and I see it seems a great deal wider than it was. That may be the fault of the perspective; it may not be really so; from the standpoint it may not be as wide as it seems to me here; but the general representation is correct. He has got an additional story here on the back part of my house, but it is generally a truthful picture or representation of Michigan avenue, excepting so far as the fancy carriages and people are concerned.

Q. Will you state whether there was at that time, as indicated upon the map, a body of water lying between Lake park and the railroad right of way?

A. Oh, yes; there was cribbing. Here you see the remains of the old cribs here at the southeast corner of the map; and I ought to say, however, that I never had such a fence as that around my garden. I had a high fence to keep out the populace.

By Mr. Ayer: I furnish a photographic copy of that print, full size, which I will offer, with consent of counsel, in place

Evidence before
Master.

of the original, which will be marked "Defendant Illinois Central Railroad Company's Exhibit Map No. 7."

Continuation of answer: This was a photograph got up by Mr. Whitefield to represent especially the Michigan terrace and the Illinois Central railroad depot—one of his Chicago views—and it is generally correct, although, so far as the carriages and horses and the character of the fences are concerned and the trees, it is a good deal embellished.

Q. Will you state whether you recollect the condition of the lake shore south of Park row, extending as far south as what is now Sixteenth street, when you came to Chicago, in 1835?

A. Substantially, I do.

Q. Will you state how far, according to your recollection, the land in that quarter of the town extended out into the lake from what is now Michigan avenue, or how far it extended out as compared with the land now occupied and existing in that quarter?

A. It would be, of course, a mere—I never measured it, but it was a very long distance, I know, from Michigan avenue to the lake at Eighteenth street and at Sixteenth street. Eighteenth street, I recollect, had a large tree in it, and the tree is there now, unless it is dead—unless it has died lately—where Pullman's house is. I had been down there several times. There were sand hills. It was down about there

where the Indian massacre took place, and I was
290 frequently down there amongst those sand hills; that is

the reason I recollect distinctly about it. The sand hills or shore which then extended a long distance into the lake, and after the extension of the north pier, according to my recollection, the land still made on there, and continued to make on for a long while, until they extended the pier out further, so as to change the current—began to cut it off. I don't know what the distance is. There is a map here that shows Scammon & Underhill's property—one of the maps shown me; I don't recollect which map—afterwards laid out as the Chicago Marine and Fire Insurance Company's addition to the town, but it extended out beyond the east line of the Illinois Central railroad—east line of their right of way. My recollection would be that it extended out a considerable distance beyond the east line of the Illinois Central right of way. My attention was called to it particularly when I conveyed to the Illinois Central railroad the right of way

through that tract of land that is marked Scammon and Jones, Dexter, etc., the land immediately south of Old street, now Eighteenth street. I can't state exactly how far, but I should suppose it must have extended from 50 to 100, perhaps 200, feet out east of the east line of the right of way of the Illinois Central Railroad Company. I know that there were sand hills there and the boys used to be on them and playing upon them; not, of course, so high, but like those sand hills at Michigan City, and I don't think they were disturbed; and then you could travel, I know, on the lake shore in those early days from Chicago a great part of the way to Michigan City. My recollection is that from Baillytown, in Indiana, about that point, up to, I should say, above Sixteenth street, when the weather was favorable, you could travel on the sand spit on the lake shore, more particularly after a storm, when the sand was laid. I have traveled on that sand shore several times. Stage used to run; don't know whether it ran as far north as that; I don't think it did, because I think the sand hills interfered with it, but the sand hills projected very far into the lake at that point.

Q. State when, according to your recollection, the process of abrasion or wearing away began at that point.

A. As I stated in my direct examination, the wearing away commenced with the extension of the piers into the lake, forming a harbor, and the first cut out was in what was Fort Dearborn addition—cut out of the land, first, immediately south of Randolph street, and washed away where the old residence of Handy was and the graves of the old soldiers, and then kept on gradually extending further. As the pier was extended into the lake the current was changed, and it kept cutting down, cutting down, till, I think, about 1852, perhaps, when Mr. Gurnee was mayor; it cut in so severely at the north end of section 15, particularly opposite Mr. Gurnee's residence, that it came very nearly up to the street in one storm, to the fence that I erected on the east side of the street, the east side of the street as laid down on the original map of section 15 in particular, and that operation of the current kept cutting away, cutting away, not even always, 291 but frequently unevenly; for instance, cut in very much more about the center of the Lake park as it was laid down than it did at first down at the lower end of it. Then, as they extended the pier, it followed on; the current changed and it cut into the bank, and there was an undertow, and in a storm it would wash away this sand spit or this sand that

Evidence before
Master.

lay outside of the high bank, and the current there formed an undertow from the south pier. Certain storms would wash that sand away, and a great storm would carry off the high bank of these sand hills. Exactly when that was done I don't know, but when I came here, in 1835, and for years thereafter, the sand hills extended very far out into the lake and were not disturbed. The general trend of the lake was in a southeasterly direction all the way down.

Q. Do you know whether or not between 1835 and 1852 a considerable tract of land had been carried away by the action of the lake which lay between 12th street and 16th street?

A. I haven't any doubt about that. I think a great many acres must have been carried away on the lake shore in the meantime.

Q. Will you please state, so far as you know, who were the occupants of the property on the east side of Michigan avenue lying between Randolph street and the river in 1852, at the time the Illinois Central railroad was located?

A. I could tell you some of them. I resided at that time directly at the northwest corner of Randolph street and Michigan avenue, and directly opposite me, on the corner, lived the father-in-law of Abner Scammon; don't think I can call his name now. He was a calker by trade. Next to him lived E. C. Stowell, I think his name was, agent for John Fink. Next, lot 5, in that block belonged to Mrs. Scammon and occupied by some one of her tenants. I can't tell exactly which one happened to occupy it at that time, but it was occupied at one time by George A. Gibbs. Next house was occupied by Mr. Willard. Several houses were built there by E. H. Hadduck, and one was occupied by Mr. Willard; one occupied by Mr. Adams. I don't know that I could recall any others. The corner house, the southeast corner of Lake and Michigan avenue, was a brick house; belonged to Mr. Rossiter, the father-in-law of Mr. Judd. He had lived there, and whether he lived there that year or whether it was occupied by some of his tenants I can't tell. North of Lake street was the hydraulic mill, and then some stone and brick houses—one built by Frank Sherman, occupied by him, and one occupied, I rather think, by Buckner S. Morris; one, I think, by Isaac Cook, and one by E. K. Swift. Mr. Collins lived on the south side of Lake street, immediately west of of Cobb's building. Mr. Cobb lived on the corner. Next south of that was E. Bowen. He had a house and lived there

a good many years. Then came Charlie Walker's house. Mr. Collins owned land there and had a big garden there, which he used to cultivate, but he lived on the south side of Lake street at first, but afterwards built and lived upon the lot where his garden was. He resided there when he sold out to the Illinois Central Railroad Company.

Q. Do you know of any efforts that were made by the Illinois Central Railroad Company about that time to purchase the water lots along the east side of Michigan avenue in that locality?

A. Yes, sir; I do.

Q. Did you sell any property?

A. I sold all of Mrs. Scammon's. Mrs. Scammon sold all of her lot that was east of 120 feet from Michigan avenue to the Illinois Central railroad.

Q. Were you interested in the hydraulic company?

A. No; not interested in the hydraulic company; but I was interested in fighting the Illinois Central Railroad Company when they were trying to get the east side of our lots without paying us what we wanted for it. So I know all about the fight and about the property.

Q. Did the Illinois Central Railroad Company purchase the property at last?

A. I think they did. I don't mean to say they purchased all the lots—some belong to other parties now—but they purchased the east side of them and the whole of some of the lots.

Cross-examination by Mr. Edsall:

Q. Referring to this map offered in evidence by the defendants, purporting to have been made in 1849, you stated that opposite fractional sections 15 and 10 south of the river this map, according to your recollection, substantially represents the water line as it was at the date of that map, 1849?

A. I think so; yes, sir.

Q. But that prior to that time the land had extended much farther into the lake?

A. Yes, sir; that is so.

Q. In your former examination you examined and referred to a certified copy of the canal commissioners' plat of fractional section 15, which is now again produced to you, purporting to have been made in the year 1836?

A. Yes, sir.

Evidence before
Master.

Evidence before
Master.

Q. And, as I recollect, you then stated that that, according to your recollection, represented substantially the shore line as you remembered it on that date?

A. That is my recollection.

Q. For two or three years subsequent to the making of the canal commissioners' plat of fractional section 15, in 1836, was there an accretion to the shore line or a wearing away of the shore line by the water?

A. I should say there was an accretion south of Madison street, but the wearing away, I should say—let us see what year that would be. I speak of the accretion down here on the lake shore. I should say that from 1836 on for a couple of years, at least, there was an accretion, it may be, but perhaps by 1839 it may have commenced to wear away a little at the upper end of it.

Q. Up near what street?

A. Near Madison street.

293 Q. Between 1836 and, say, 1839, according to your best recollection, how much would be the accretion, we will say, between Adams street and south to the southern end of fractional section 15?

A. Well, I don't think I could state how much that accretion was. There were times when the accretion was pretty large, and then it would be swept away again by a change of wind, and the high water. I don't recollect the years when we had the high water, but I should rather think it was in 1838 that we had very high water, and during that storm a good deal of the accretion was washed away. I can't tell how much. There was an accretion, though, perceptible accretion, but by the extension of the pier, at first, it wore away north of this, and the sand would be carried down and left along the shore.

Q. When you say north of this you mean north of Madison street?

A. Yes, sir; north of Madison street.

Q. And the sand that was washed away—

A. Swept around the north end of the pier, was landed all along, so here on the shore there was a gradual accretion in the land south.

Q. Opposite fractional section 15?

A. Yes, sir; and further south when the sand was carried so far, but opposite fractional section 15 it was marked. I

recollect in 1836 I was over at Michigan City, and I bought a pony, and I traveled in here on the sand.

Q. According to your recollection, did or did not fractional section 15, we will say in the year 1838, extend farther into the lake than it did in 1836, at the date of the canal commissioners' plat?

A. I should say there was an accretion of the land there east of—that is, of the bank as it existed when this survey was made, but how extensive that was I couldn't tell you, for I never had occasion to measure it, but there was a general accretion of the sand there. The boys used to go down there and play and gather black sand. I haven't it sufficiently distinct in my mind to say whether it may have been ten feet or it may have been twenty feet or it may have been thirty feet at this point.

Q. About what year did the principal washing away take place which carried the water up so near the west line of Michigan avenue, as indicated upon the maps of 1853 and 1860, to which you have been referred?

A. Well, just as fast as they extended the pier the current changed. Now, I should suppose, from my recollection, that there wasn't much of any washing away of the ground south of Madison street until after 1845. I recollect I was in the council that year, and we found it necessary to protect the land in Fort Dearborn addition, but I don't think we did anything below that. It didn't wear away in section 15, but between that time and 1852 it gradually wore away on section 15, so that in 1852 or 1853, when Mr. Gurnee was mayor, it came pretty near up to his house, which was situated on the west side of Michigan avenue, south of Monroe street. When I say up to Mr. Gurnee's house I mean not across

Michigan avenue (as it was made by my fence, ninety feet 294 wide), but it threatened the avenue so much that he was

called out in the night and went to work to protect the shore and the street; thought it was necessary to protect the street. That was when Mr. Gurnee was mayor, and that must have been—I can't tell when it was; I think Mr. Gurnee was mayor two years, that probably must have been 1852 or 1853.

Q. As I understand from your testimony, then, this cutting away of the lake shore was caused by the extension of the south pier at the mouth of the river into the lake. That when the pier extended but a short distance the current would run around the end of the pier at a certain angle and strike against the shore, and when it extended a greater dis-

Evidence before
Master.

Evidence before
Master.

tance it would go around the end of the pier and strike in perhaps the same angle, but farther down on the lake shore.

A. That is substantially so; every extension of the pier changed the current and sent the angle farther south, but whoever has observed the changes in the currents of water knows necessarily that you can't determine what angle you will produce by extending your pier, as nothing is so uncertain as currents of water; only this is certain, that as you extend it out into the lake you change the current, and every time you extend the pier you extend the wash or wearing away on the east shore of the lake.

Q. That is, if I understand you, it would strike the shore farther south?

A. Farther south, yes, sir; every time you extend the pier.

Q. And then the first wearings away from the pier—were they on the Fort Dearborn addition on fractional section 10?

A. Yes, sir; on section 10

Q. And didn't commence to wear away opposite fractional section 15 until later years?

A. That is so.

Cross-examination by Mr. Fuller:

Q. Look at the map known as the Talcott survey, now shown you, and state whether the sand bar as located on that Talcott survey is as you remember it?

A. I don't think there was any sharp end at the south end of that bar; that extended down, and the wash was against the shore.

Q. The sand bar extended down until it reached the shore?

A. Yes, sir; extended down and reached the shore. This sand bar, when I came here in 1835, this old channel of the river extended down here to section 15, and turned out there into the lake just at the dividing line or about the dividing line between section 10 and section 15, or a little further south, but this survey was made in the year 1836.

Q. The survey was executed in February, 1836?

A. Well, this, in the meantime, was extended, the pier or one of the piers, and there had been a great increase of the sand bar, and, as I stated in my testimony before, the winds and waters filled up the old channel of the river with this sand. I am unable to say whether the width that is

295 given there to the old channel of the river is correct, and the shape of this sand bar was different at different times; when a big storm would come up it would wash away a very considerable portion of it, and then it would accumulate again. The water, my recollection is, was very low in 1836, and there was a very large sand bar. I recollect this house of Jim Kinzie's, laid down on this map, and what is put down as the Walker house I thought was Noble's; don't recollect of seeing Walker's house before, but the Nobles built shanties there—that is my recollection—and Kinzie built a shanty. Both claimed to get a pre-emption of it, to make a pre-emption of it, or to enter it by a float; and I should say that this map might be exhibited as a fair representation of the sand bar as it appeared sometimes during the fall or winter of 1836, except that it did not terminate there abruptly at the south end. It shaded along, as sand bars would upon a shore.

Q. Well, after 1836, what became of that sand bar?

A. Well, my recollection is that a great storm in the winter or early spring came up and washed it all away, excepting the upper portion of it.

Q. The upper portion being in section 10?

A. Yes, sir; all of this washed away in a great storm, so that the dispute between Kinzie and Walker, or the parties that were fighting for the proprietorship of the sand bar, was settled by the winds.

Q. When was Michigan avenue opened through Fort Dearborn to the river, to South Water?

A. I don't think I am able to tell you to a year; I think it was not done until—I don't know what year it was, but I think it wasn't done until after the location of the depot and the building of the United States hospital, but the year I couldn't tell. It was not opened, according to my recollection, till after the Illinois Central railroad came here and made their location; that, I think, was in 1852.

Q. Do you remember, Mr. Scammon, whether there was an attempt made before that to open Michigan avenue through a part of the property which had been reserved by the Government?

A. There was an attempt made in 1845, when I was in the council, to open Michigan avenue up to that block 1; the Government had refused us, or the men that were here upon the harbor; Capt. Schlotter and others that lived in the fort building, refused to let us open them that portion of Michi-

Evidence before
Master.

Evidence before
Master.

gan avenue as it is laid down on this original map, which the Government had not sold.

Q. Well, the portion of the ground that fronted on Michigan avenue?

A. Yes, sir; fronted. The city did not undertake to put the street through block 1; the Government reserved that part. The only attempt was to open that street as it was laid down upon this map, and the Government, or at least the gentleman here that was in charge of the harbor, Capt. Schlatter, still occupied the Government building in the old fort; the Government fence had not been removed. There was a Government fence, an old fence, and there had been a garden there, and Capt. Schlatter, having charge of the harbor works, resided in the fort, and he occupied this land as a garden and cultivated it as a garden.

Q. That surrounded the fort, didn't it?

A. That was south of the old fort.

Q. And the old fort was still standing at the time?

A. Yes, sir.

Q. Substantially, when the avenue was opened the old fort had been removed, hadn't it?

A. The fort had ceased to exist, but the Government subsequently sold these lots, and then they allowed the street to be opened.

Q. And they sold the lots according to Fort Dearborn plat?

A. Yes, sir; sold according to the plat, and the patents all recognized the plat.

Q. You say that Fort Dearborn had ceased to exist, but at the time of those conveyances the Government buildings were there and the Government was in possession?

A. Yes, sir; the Government was in possession; they never gave up the possession until they sold.

Q. The lots?

A. Yes, sir. The old fence there, there was an enclosure that was here when I came here in 1835, and that remained until the Government sold the lots.

By Mr. Fuller: On behalf of the city of Chicago I offer in evidence Talcott's map referred to, and by stipulation of counsel a copy is substituted for the original and marked "Defendant City of Chicago's Exhibit Map Number 8."

By agreement of counsel the taking of further testimony adjourned to Wednesday, May 4, 1887, at 2 o'clock p. m.

May 4, 1887.

Evidence before
Master.

Present: Messrs. Williams & Thompson, McCagg & Culver, and A. F. Bradley, for complainants, and Messrs. B. F. Ayer, Lyman Trumbull, and E. R. Woodle, for defendant Illinois Central Railroad Company, and M. W. Fuller for The City of Chicago.

By Mr. Ayer: I now offer on behalf of the defendant Illinois Central Railroad Company the following: An act to incorporate the Illinois Central Railroad Company, approved February 10, 1851.

Of this and those that follow I will furnish copies, and they need not be printed in the record.

Also an ordinance of the city of Chicago adopted June 14, 1852, and the agreement between the city of Chicago and the Illinois Central Railroad Company, dated March 28, 1853, in which that ordinance is incorporated.

Also an ordinance of the city of Chicago granting right of way for approach to passenger depot, adopted September 10, 1855.

Also an ordinance of the city of Chicago granting additional right of way to the Illinois Central Railroad Company, passed September 15, 1856.

Also an act of the legislature of Illinois, passed April 16, 1869, entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago."

May 4, 1887.

332 FERNANDO JONES, being first duly affirmed, testified on behalf of defendant City of Chicago as follows:

By Mr. Fuller: What is your full name?

A. Fernando Jones.

Q. How long have you resided in Chicago?

A. Fifty-two years, within a few days.

Q. What time did you arrive here, and what was your age at that time?

A. I arrived here a day or two before my birthday, which was the 26th day of May, 1835; I was fifteen years old.

Q. Do you recollect the condition of the lake shore in

Evidence before Master. 1835 in front of the lake shore opposite fractional section 15 at that time?

A. I do.

Q. Examine this map marked number 8, being the Talcott map, and state whether you remember a map of that sort.

A. I remember that map.

Q. Do you recollect that that survey was rejected and how you were informed of the fact, if you were?

A. I remember that the news came from the surveyor general's office at St. Louis, that the survey had been rejected by the General Land Office at Washington. The news came here a short time after the sand bar had been all washed away; at least that part of the sand bar opposite fractional section fifteen; and a part of the sand bar north of it had been washed away.

Q. That north of it being in front, of course, of 10?

A. In front of 10.

Q. Where were you at the time you say the news came? In what occupation were you engaged?

A. I was a clerk in a hardware store of my father's on Water street, but I was also engaged in the land office at odd times to assist in the work—over work—and I was in the land office at the time the letter came to the register's office.

Q. What year was that, Mr. Jones?

A. That was in the spring of 1837.

Q. How long before that letter came was it that the sand bar had been washed away, as you state?

A. My remembrance is that it was perhaps a couple of weeks. I am not certain, but my memory is now that the sand bar was washed away before the date of the letter from Washington, before it had actually been cancelled, that the action of the lake had canceled it.

333 Q. It was a survey of the sand bar, was it?

A. It was a survey of the sand bar.

Q. What sort of buildings, if any, were upon the sand bar before it was washed away?

A. There was one building, supposed to have been on fractional section 10, near the south line, and another just south of that.

Q. Do you recollect who lived in them or owned them?

A. Just north of Madison street and just south of Madison street was one, and then again there was another one

near the end of the sand bar, which had begun to spread and extend down, and another claim shanty, not so substantial a one. The one on the north was Walker's, and the one just south of that was known as the Kinzie house, and the owner I don't know on the extreme south, but my remembrance is it was built to retain any interest that might have been added to it by the accretion in behalf of Mr. Noble, who had made the entry.

Q. You say two of them were more substantial than the shanty. How substantial were the two—what sort of houses or erections?

A. They were built with upright two-by-four scantling and boards nailed onto those frames. One of them had a shingle roof and the other was covered only with boards. Of those nearest Madison street, the lower one was just made up of boards, without any scantling whatever, and a board roof and had only been there a very short time when it was washed away; not more than a week or so.

Q. How was the sand bar washed away? Under what circumstances? How long a time was occupied?

A. The storm came up in the afternoon and seemed to threaten the buildings there. The next morning the buildings—meaning the two south ones opposite fractional section 15—were gone and the sand bar was gone. The Walker house was merely overturned and shattered, pretty nearly destroyed, and did go in a short time after that. It was all done in one night.

Q. You mean, I suppose, that the Walker house could still be seen?

A. It could still be seen. It was partly in the water; very shallow and very little sand within, I should say, fifty steps of it.

Q. And that afterwards disappeared also?

A. Afterwards disappeared.

Q. Soon after?

A. Shortly after; within a week or two.

Q. Something has been said in this case about the mouth of the river coming out near Madison street. What depth of water was there at that mouth of the river?

A. The mouth of the river when I landed, or within a few days, was deep, the south pier not being sufficient to keep quite a flow of water along the old river; but before the summer had passed of 1835 the sand bar had spread down further, and the depth of the water was, a good many times,

Evidence before Master. not more than six inches or a foot; easy to be passed over.

Q. Easy to pass over?

A. At many times.

334 Q. At Madison street to the sand bar?

A. Great many times in that vicinity.

Q. When you say pass over—on foot?

A. I have walked over that on foot a good many times.

Cross-examination waived.

By agreement of counsel the taking of further testimony is adjourned to Thursday, May 5th, at 2 o'clock p. m.

May 5, 1887.

Present: Messrs. Williams & Thompson, McCagg & Culver, and A. S. Bradley, for complainants; Messrs. B. F. Ayer, Lyman Trumbull, and E. R. Woodle, for defendant Illinois Central Railroad Company, and Mr. M. W. Fuller, for City of Chicago.

By Mr. Fuller: On behalf of the City of Chicago, I now offer in evidence a stipulation relative to the boundaries of the town, etc., as Defendant City of Chicago's Exhibit Stipulation No. 9.

DEFENDANT CITY OF CHICAGO'S EXHIBIT STIPULATION NO. 9.

In the United States Circuit Court, Northern District of Illinois.

The People, etc.,

vs.

The Illinois Central R. R. Co., et al.

It is hereby stipulated that the subdivision known as the "original town of Chicago" was laid out and platted by the canal commissioners by plat bearing date August 4, 1830, and that it included that part of sec. 9, T. 39, R. 14, bounded as follows: On the south by Madison street, on the west by Desplaines street, on the north by Kinzie street, and on the east by State street.

It is also stipulated that at the organization and incorporation of the town of Chicago, August 10, 1833, the limits of the town were adopted as follows: "Beginning at the intersection of Jackson and Jefferson streets, thence north 10 Cook street and through that street to its eastern extremity in Wabansia; thence on a direct line to Ohio street, in Kinzie's addition; thence eastwardly to the lake shore; thence south with the line of beach to the northern United States pier; thence northwardly along said pier to its termination; thence to the channel of the Chicago river; thence along said channel until it intersects the eastern boundary line of the town of Chicago as laid out by the canal commissioners; thence southwardly with said line until it meets Jackson street; thence westerly along Jackson street until it reaches the place of beginning."

Evidence before
Master.

And also that the corporate limits of the town were again extended by section 2 of the act of General Assembly entitled "An act to change the corporate powers of the town of Chicago," approved Feb. 11, 1835, as follows: "That all that district of country contained in sections nine and 335 sixteen, north and south fractional section ten, and fractional section fifteen, in township thirty-nine north, of range fourteen east, of the third principal meridian, is hereby declared to be within the boundaries of the town of Chicago, provided that the authority of the board of trustees of the said town of Chicago shall not extend over the south fractional ten until the same shall cease to be occupied by the United States."

It is also stipulated that the first municipal election held by the city of Chicago was May 2d, 1837, said election being held under section 11 of the "Act to incorporate the city of Chicago," approved March 4, 1837.

It is also agreed that the city of Chicago, on April 23, A. D. 1875, adopted the act of the General Assembly entitled "An act to provide for the incorporation of cities and villages," approved April 10, A. D. 1872, and in force July 1, 1872.

This stipulation is made subject to all objections to the relevancy and legal effect of the facts therein stated, the Illi-

Evidence before Master. nois Central Railroad Company objecting to the same as immaterial and irrelevant.

M. W. FULLER,

For City of Chicago,

B. F. AYER,

For Ill. Cen. R. R. Co.

GEO. HUNT, Att'y Gen'l.

Per THOMPSON & McCAGG.

I also offer in evidence the following acts of the legislature of the State of Illinois:

"An act to create and organize the counties therein named," approved January 15, 1831.

An act entitled "An act to incorporate the inhabitants of such towns as may wish to be incorporated," approved February 12, 1831.

An act entitled "An act providing for the recording of town plats," approved February 27, 1833.

An act entitled "An act to change the corporate powers of the town of Chicago," approved February 11, 1835.

An act entitled "An act to amend an act entitled 'An act to change the corporate powers of the town of Chicago,'" approved January 15, 1836.

An act entitled "An act to incorporate the city of Chicago," approved March 4, 1837.

An act entitled "An act supplementary to an act to incorporate the city of Chicago, approved March 4, 1837," approved February 16, 1847.

An act entitled "An act to reduce the law incorporating the city of Chicago and the several acts amendatory thereof into one act and to amend the same," approved February 14, 1851.

An act entitled "An act amendatory of an act entitled 'An act to reduce the law incorporating the city of Chicago

336 and the several acts amendatory thereof into one act and to amend the same, approved February 14, 1851," approved February 12, 1853.

Evidence before
Master.

An act entitled "An act amendatory of an act entitled 'An act to reduce the law incorporating the city of Chicago and the several acts amendatory thereof into one act and to amend the same, approved February 14, 1851,' " approved February 28, 1854.

An act entitled "An act to amend an act to amend an act entitled 'An act to reduce the law incorporating the city of Chicago and the several acts amendatory thereof into one act and to amend the same, approved February 14, 1851,' and to reduce the several acts amendatory of said act into one act, and to amend the act entitled 'An act to incorporate the City of Chicago Hydraulic Company, approved February 15, 1851, and to reduce the several acts amendatory of said last-mentioned act into one act, and to amend the act entitled 'An act to incorporate a board of sewerage commissioners of the city of Chicago, approved February 14, 1855,' " approved February 18, 1861."

An act entitled "An act to reduce the charter of the city of Chicago and the several acts amendatory thereof into one act and to revise the same, approved February 13, 1863."

An act entitled "An act to amend an act entitled 'An act to reduce the charter of the city of Chicago and the several acts amendatory thereof into one act and to revise the same, approved February 13, 1863,' " approved February 16, 1865.

I also offer in evidence the decision of the Honorable Carl Schurz, Secretary of the Interior, in the matter of the Valentine scrip, March 5, 1879, with the letters from the Department of the Interior appended thereto, with letters of the Commissioner of the General Land Office to the corporation counsel of Chicago at that time thereto attached, which will be marked "Defendant City of Chicago's Exhibit Decision of Secretary of Interior as to Valentine Scrip."

Evidence before
Master.

DEFENDANT CITY OF CHICAGO'S EXHIBIT "DECISION OF THE SECRETARY OF THE INTERIOR AS TO VALENTINE SCRIP."

Valentine scrip.

Decision of the Hon. Carl Schurz, Secretary of the Interior,
Confirming Title in the City of Chicago.

Department of the Interior,
General Land Office, March 5, 1879.

I, J. A. Williamson, Commissioner of the General Land Office, do hereby certify that the annexed is a true and literal exemplification of a letter from the Secretary of the Interior to the Commissioner of the General Land Office, dated 28th ulto., the original of which is now on file in this office.

In testimony whereof I have hereunto subscribed my name and cause the seal of this office to be affixed, at the city of Washington, on the day and year above
[Seal.] written.

J. A. WILLIAMSON,

Commissioner of General Land Office.
Department of the Interior,
Washington, Feb. 28, 1879.

337

Sir: On October 18, 1875, Thomas B. Valentine applied at the local office at Springfield, Illinois, to locate Valentine scrip E. No. 229 on certain lands in the fractional S. W. 1-4, section 10; town, 39 N., range 14 E., as originally surveyed, lying between Randolph street and the center of Madison street, extended east, and extending from Michigan avenue eastward to the easterly line of the Government survey of 1821, in the city of Chicago, Cook county, Illinois.

The land applied for is within the boundaries of what was formerly known as the Fort Dearborn reservation.

On February 12, 1878, you decided that said location was valid, and that Mr. Valentine was entitled to a patent for the land embraced therein, except as to that part which is located

between the center of Madison street and the north line of said street, which you held had been properly dedicated to the public as a street. Evidence before Master.

The City of Chicago has appealed from your decision, and her counsel have assigned numerous grounds of error therein and filed elaborate briefs in support of their objections.

The history of the land in contest is substantially as follows, viz:

The tract formed part of what was formerly known as the Northwest Territory, and was ceded to the United States in the year 1787 by Virginia. In the year 1804 a portion of the tract now known as the S. W. fr'l 1-4, section 10, and also parts of sections 9, 15 and 16 S. of the Chicago river, were occupied as a military post by direction of the President, under authority of an act of Congress approved May 3, 1798, and troops continued to occupy the same until August 16, 1812, when the garrison under command of Capt. Heald, while attempting to retreat to Fort Wayne, was massacred by the Pottawattomie Indians at a short distance from the fort and within the present limits of the city of Chicago.

The post was reoccupied on July 4, 1816, under authority of an act of Congress approved June 14, 1809, by which the President was authorized to continue possession of military posts necessary for frontier defense, and in the same year the Government caused some factory houses for the use of the Indian Department to be built on the S. W. fr'l 1-4, section 10.

The troops continued to occupy the post until the month of May, 1823, when it was evacuated by direction of the War Department and left in charge of Dr. A. Wolcott, Indian agent. During this year the factory houses were sold by order of the Secretary of the Treasury.

An official survey of town. 39 N., range 14 E., was made in the year 1821 and a plat thereof constructed and approved by the surveyor general on November 1, 1822.

By this survey the S. W. fr'l 1-4 section 10 was represented as containing 57.52 acres of land.

Evidence before
Master.

In compliance with the request of Mr. Calhoun, then Secretary of War, the S. W. fr'l 1-4 section 10 was reserved for military purposes by the Commissioner of the General Land Office on October 1, 1824. The post was again occupied by troops, acting under the orders of the Secretary of War, on August 19, 1828, and was evacuated in May, 1831, and left in charge of Oliver Newberry.

It was again occupied by troops, under the command of Major Whistler, of the United States Army, during the Sac and Fox Indian war of 1832, and at that time several hundred persons took refuge in the fort for security against the Indians. From that time until about the year 1838 the post appears to have been continuously in possession of the military, and a light-house was erected on the reservation by authority of Congress.

On April 23, 1839, Mr. Poinsett, Secretary of War, appointed Matthew Birchard, solicitor for the General Land Office, as agent for the War Department for the purpose of selling such portion of the reservation as was no longer required for military purposes or for the use of the light-house.

Mr. Poinsett's instructions for the sale of the property were as follows, viz:

"Enclosed you will receive an appointment to act as the agent of this department in selling the military reservation at Fort Dearborn, and which confers upon you authority to procure and execute the necessary survey and plat thereof. Before recording the plat you will reserve the light-house and buildings connected with it and such quantity of land as you may think it necessary to retain for the use of the light-house, and the land so reserved will be designated on the plat and withheld from sale.

"I advise that you make an estimate of the value of each lot before the sales commence, availing yourself for this purpose of the best information you can obtain at Chicago. Should bids be offered at a price manifestly inadequate you are authorized to decline them. Upon this point much is necessarily left to your discretion; but I think a bid which does not amount to one-fourth the cash value of a lot should be regarded as frivolous and rejected accordingly. In con-

ducting the sale you will be governed generally by the terms of the advertisement. Evidence before
Master.

"After the acceptance of a proposal you will require the purchaser to produce a certificate from the cashier of the bank which on consultation with the Secretary of the Treasury you may deem it best to select as the depository of the purchase-money that the money to be paid down has been specially deposited in said bank to the credit of the Treasurer of the United States, and when the amount so deposited completes the payment you will issue a final certificate.

"In cases where a credit is granted for a part of the consideration to be paid and good security is given thereof you will issue the certificates so as to correspond with the facts. It is not expected that any money will be paid into your hands. For the convenience of the Treasury Department you will return to the bank the several small certificates of deposit and receive in lieu thereof a large certificate in duplicate covering the aggregate amount. One of these you will

forthwith transmit by mail to this department and the
339 other you will bring with you on your return to this city. Should any emergency arise which will prevent the sale of the land taking place at Chicago without prejudice to the public interest you are authorized to adjourn it to Detroit, or to the city of New York, as you may deem most expedient on a full consideration of the subject, and to such a period as you may judge to be the most advantageous to the Government.

"You will keep this department advised of your proceedings and any difficulties you may encounter after your arrival at Chicago.

"Nothing can be allowed for your services beyond your salary as solicitor of the General Land Office, but your actual traveling and other necessary expenses while engaged in this business will be paid on your certificate of honor that they were actually and necessarily incurred."

The action of the Secretary of War was based upon an act of Congress entitled "An act authorizing the sale of certain military sites," approved March 3, 1819, which is in the following words, viz:

Evidence before
Master.

"That the Secretary of War be, and he is hereby authorized, under the direction of the President of the United States, to cause to be sold such military sites belonging to the United States as may have been found or become useless for military purposes; and the Secretary of War is hereby authorized, on the payment of the consideration agreed for into the Treasury of the United States, to make, execute, and deliver all needful instruments conveying and transferring the same in fee, and the jurisdiction which had been specially ceded for military purposes to the United States over such site or sites shall thereafter cease." (3 Statutes, p. 520.)

Mr. Birchard proceeded to Chicago and caused the land not reserved for light-house purposes to be surveyed and subdivided into blocks, lots, streets, and alleys, and sold the lots to the highest bidders for cash, and deeds were afterward executed by the Secretary of War and delivered to the purchasers.

Mr. Birchard did not sell the tract now in dispute, but caused the words "public grounds to be forever kept vacant of buildings" to be written across the face of the plat of said Fort Dearborn addition representing the same.

In his official report to the Secretary of War, dated November 21, 1840, Mr. Birchard explained his reasons for not selling said tract, as follows: "In the meantime the common council of the city appointed a committee to make known their wishes and to advise with me as to the proper manner of subdividing the tract and laying out the streets and alleys. This committee, having examined the ground, presented the lithographed plat enclosed (marked A) and requested me to continue the principal streets of the city through the tract of the same width given to them in the surveys of the adjoining portion of the city, to give to State street the width originally designed, to reserve the public square at the foot of Randolph street, and to leave vacant to that point the margin of the lake.

340 "Concurring in the propriety of their views, the plan, as will be seen by the plat, was adopted."

Michigan avenue was afterward extended through this tract by the city authorities, leaving the square called "Dear-

born park" on the west side of said avenue, and the land upon which Mr. Valentine's location was made on the side thereof.

Evidence before
Master.

The act of Congress entitled "An act for the relief of Thomas B. Valentine," approved April 5, 1872 (17 Statutes, p. 649), under which the scrip located upon the land in contest was issued, authorized its location upon any unoccupied and unappropriated public lands of the United States, not mineral, whether surveyed or unsurveyed.

The only questions material to a decision of this case are:

First. Can the action of the Secretary of War in selling and disposing of the lands above mentioned be now inquired into by this department?

Second. Are the lands applied for of the class intended to be made subject to appropriation with Valentine scrip?

It is not denied by counsel for the applicant nor questioned by any one that the lands sold under the direction of the Secretary of War brought their full value at the time, nor that the plan adopted for selling the same was not more advantageous for the Government than to have sold the entire tract to one person.

The sale appears to have been open and fair, and all parties desirous of purchasing any portion of the land were given an opportunity so to do.

The sales made were subsequently confirmed and the parties purchasing in due time received their patents for the tracts purchased.

If the Secretary of War exceeded his authority in directing and confirming the sales thus made, as claimed by counsel for the applicant, it cannot be doubted that the conveyances executed and delivered by him to the purchasers passed the title *prima facie* to the tracts therein described. The title thus acquired cannot, or at least should not, be disturbed or clouded by the act of any executive officer. If it be true that the titles thus granted are voidable in a suit brought by the

Evidence before
Master.

Government, they can only be attacked through the courts, and should not be questioned there even, unless it be shown that the government was defrauded by the sale.

U. S. v. Stone, 2 Wallace, 525.

Hughes v. U. S., 4 Wallace, 232.

Moore v. Robbins, 6 Otto, 530.

In the plan of sale adopted by Solicitor Birchard and approved by the Secretary of War each purchaser acquired an interest in the streets and alleys laid down on the plat. Where a tract of land is divided into lots and blocks with streets and alleys for the accommodation of the side owners and the lots and blocks are sold by the party making the plat, the purchasers and the public have a right to presume that such streets and alleys are dedicated to the public use, and to act accordingly.

341 The same principle applies in case a park or public square or tract for a public square is laid down on the plat. The owner, after the sale of the lots and blocks, cannot sell the tract so set apart either as an entirety or in parcels. Each purchaser of a lot would have a right in such a case to insist that he purchased in accordance with the plan of sale adopted by the owner, and that a sale of all of the lots and blocks divested the owner of all interest in the property.

I know of no reason why the same principle should not be applied in this case. If it was most advantageous to the Government to sell the tract formerly known as Fort Dearborn reservation by dividing it into lots and blocks, with streets and alleys and a public square thereon, a sale of all of the lots and blocks into which the tract was thus divided, it seems to me, should be considered a sale of so much of the reservation as was included in that plan.

The right of the Secretary of War to sell the tract of land he caused to be platted and divided into lots and blocks, and in the manner adopted by him, has never been questioned by the Government; but, on the contrary, the plat then made has been recognized by Congress in disposing of some of the lots not sold at that time. (See act for the relief of Jean Baptiste Beaubien, 10 Statutes at Large, p. 805.)

After a lapse of forty years, during which time extensive and valuable improvements have been made on the lots sold, as well as on the streets and tract reserved for a public square, and no objections having been raised by the United States to the manner in which the original tract was disposed of, I am of the opinion that the titles, as well as the rights, easements, and privileges, granted by the solicitor of your office and confirmed by the Secretary of War by his approval of the acts of that officer should now be considered settled and no longer subject to be questioned by any one. (*Phillips v. Payne*, 2 Otto, 130.)

Evidence before
Master.

There are other grounds which, in my opinion, are necessarily fatal to this application.

The act of the Secretary of War in making a final disposition of this land in 1839 was conclusive and binding upon the Interior Department, and cannot now be reconsidered or set aside, directly or indirectly. The doctrine of *res judicata*, so well known and recognized in the courts, has no less a standing in the executive department. Indeed, in all things and in all kinds of cases, the departments apply it in the same manner in which it is applied by the courts.

In the case of *R. H. McGoon* (13 Opinions, page 456), Acting Attorney General Bristow said:

"The principle has been so frequently declared that the final decision of a matter before the head of a department is binding upon his successor in the same department, under certain well defined exceptions, that it is now to be regarded as a settled rule of administrative law." Citing *United States v. Bank of Metropolis*, 15 Pet., 401; 2 Opinions, 9; *ib.*, 464; 4 *ib.*, 341; 5 *ib.*, 29 and 123; 9 *ib.*, 101, 301, 387; 12 *ib.*, 358; 13 *ib.*, 33 and 226.

342 This rule is equally applicable to cases which have been decided by the head of a different department who at the date of his decision had jurisdiction over the matter involved in the decision.

This question was expressly decided by Attorney General Reverdy Johnson, in 1850, in the *Des Moines River* case (5

Evidence before
Master.

Opinions, 240). In that case a grant of lands had been made, in the year 1846, to the State of Iowa to aid in the improvement of the navigation of the Des Moines river. On March 2, 1849, the Secretary of the Treasury, who was by law the head of the Land Department, decided that the grant did not extend above the mouth of the Racoon fork.

By act of Congress approved March 3, 1849, the General Land Office was transferred to the Interior Department and the Secretary of the Interior was invested with all of the powers relative to land matters which were formerly vested in the Secretary of the Treasury. Subsequently an application was made to the Secretary of the Interior to place a different construction on the granting act, which would in effect have annulled the decision of the Secretary of the Treasury.

The question as to the jurisdiction of the Secretary of the Interior over the matter was submitted to the Attorney General, who decided that the question was disposed of by the Secretary of the Treasury while the Land Office belonged to that department, and the subject was therefore res judicata and beyond the control of the Secretary of the Interior.

The only remaining question to be considered is whether Valentine scrip is locatable upon this land.

The act of April 5, 1872, under which this scrip issued, provided that in lieu of the Miranda Mexican grant, called "Rancho Arroyo de San Antonio," situated in the county of Sonoma, in the State of California, and on execution of a deed "conveying to the United States all his right, title, and interest to the lands covered by said Miranda grant," Thomas B. Valentine or his legal representatives "may select and shall be allowed patents for an equal quantity of unoccupied and unappropriated public lands of the United States not mineral and in tracts not less than the subdivision provided for in the United States land laws, and, if unsurveyed when taken, to conform, when surveyed, to the general system of the United States surveys." (17 Statutes, 649.)

It is contended by counsel that the lands conveyed by Valentine to the United States were situated but a short distance from San Francisco, with which place they were connected by a navigable river; that Petaluma, a city of several

thousand inhabitants, was built on them, and owing to their great value, it was the intention of Congress to authorize the location of the scrip upon any of the unoccupied and unappropriated public lands not mineral, no matter where they were situated.

Evidence before
Master.

On investigation of the facts relative to the Miranda grant I find that on October 8, 1844, Manuel Micheltorena, Mexican governor of California, granted to Juan Miranda the place known as Rancho Arroyo San Antonio, bounded by the laguna and arroyo of the same name, and the pass and
343 estero of Petaluma, containing three square leagues, more or less.

California was acquired from Mexico by the treaty Guadalupe Hidalgo, and by the 8th article of said treaty the United States stipulated to protect the property rights of all residents within the ceded territory in the same manner that the property rights of its own citizens were protected.

The treaty did not, *proprio vigore*, operate as a confirmation of Mexican grants, but, on the contrary, being executory in character, it addressed itself to the political department of the Government, and the duty devolved upon Congress of providing means for its enforcement.

Congress, therefore, by act approved March 3, 1851, established a board of land commissioners, with power to investigate the validity of said grants and titles, with the right of appeal to the United States district and supreme courts.

The Miranda grant was presented for confirmation to the board of land commissioners by Valentine, and also by the grantees of one Ortega, who was Miranda's son-in-law. These parties claimed adversely to each other, and Valentine finally withdrew his claim, intending, it is alleged, to intervene in the district court. Before the case was reached for trial in said court the Supreme Court had rendered a decision which precluded him from asserting his title by intervention. Ortega's claim was therefore prosecuted by his grantees until finally rejected by the Supreme Court of the United States.

After the claim of the grantees of Ortega was rejected the

Evidence before
Master.

lands were disposed of like other public lands and the proceeds covered into the Treasury.

Subsequently Valentine produced satisfactory evidence that the land had been lawfully granted to Miranda by the Mexican authorities and conveyed to him by mesme conveyances, and Congress passed the act granting to Valentine an amount of scrip equal to the amount of land contained in said grant.

It will thus be seen that it was owing to Valentine's own laches that the land was lost in place, for if he had prosecuted his claim in the first instance in the manner required by law the grant would have been confirmed by the courts under the act of 1851, and he would never have been disseized.

It is true that Petaluma was built on the lands, but Valentine did not build it. It is also true that the lands were very valuable at the date of the act for his relief, but no act of his contributed to that result, for it was the improvements of settlers who had purchased from the Government after the rejection of the grant by the courts that enhanced the value of the lands.

The value of the land at the date of the act cannot fairly be used by Valentine as an argument to increase the value of the scrip. The equitable measure of value would be the land in a wild state, stripped of the valuable improvements made by others.

Looking to the equitable intention of the law-makers, I am of the opinion that it was intended that this scrip should be located upon any unoccupied and unappropriated 344 public lands, not mineral, which were in a state of nature, and I do not think that Congress intended that Mr. Valentine or his assigns should be allowed to locate said scrip in the business center of one of our great cities, and thus absorb its streets, parks, and public improvements.

The lands sought to be located with this scrip by Valentine and others are probably of more value than the entire Miranda grant, and the equitable rule invoked by counsel is, in my opinion, a conclusive argument against the claims.

I therefore hold that the tract of land described in the application of Thomas B. Valentine is not unoccupied and unappropriated public land of the United States, and that even though it were unoccupied and unappropriated it would not be subject to appropriation with said scrip.

Evidence before
Master.

Your decision is reversed and said application is rejected for the reasons stated. The papers transmitted with your letter of June 25, 1878, are herewith returned.

Very respectfully, C. SCHURZ, Secretary.

The Commissioner of the General Land Office.

Department of the Interior,
General Land Office,
Washington, D. C., March 24, 1879.

Sir: On the 12th of February, 1878, I rejected the application of George F. Blanchard to locate with Valentine scrip E. No. 31 a certain tract of land known as the addition to fractional sec. 15, t'p 39 N., R. 14 E., 3d P. M., Ill.

Sixty days were allowed for appeal. More than sixty days have elapsed and no appeal has been taken.

Therefore I have this day noted this rejection upon the records of this office. The said scrip is held subject to the order of Mr. Blanchard.

Very respectfully, J. A. WILLIAMSON,
Commissioner.

Hon. Jos. F. Bonfield, Chicago, Ill.

Department of the Interior,
General Land Office,
Washington, D. C., March 24, 1879.

Sir: In the matter of the appeal taken by the city of Chicago from my decision of February 12, 1878, in the case of the application of David W. Kean to locate with Valentine scrip E. No. 221 a certain tract of land lying in the southeasterly portion of the southwest fractional quarter of sec. 10, t'p 39 N., R. 14 E., 3d P. M., Ill., I have to advise you that on the 28th ultimo the honorable Secretary of the In-

Evidence before
Master.

terior reversed my said decision and rejected said application.

345 This rejection has this day been noted upon the records of this office and the said scrip is held subject to the order of Mr. Kean.

Very respectfully, J. A. WILLIAMSON,
Commissioner.

Hon. Jos. F. Bonfield, Chicago, Ills.

Department of the Interior,
General Land Office,
Washington, D. C., March 24, 1879.

Sir: In the matter of the appeals by the city of Chicago, from my decision of February 12, 1878, in the case of the application of Thomas B. Valentine to locate with Valentine scrip E. No. 229 a certain tract of land in fractional sec. 10, t'p 39 N., R. 14 E., 3d P. M., Ills., I have to advise you that on the 28th ultimo the honorable Secretary of the Interior reversed my said decision and rejected said application as to the entire tract applied for. This rejection has this day been noted upon the records of this office. The said scrip is held subject to the order of Mr. Valentine.

Very respectfully, J. A. WILLIAMSON,
Commissioner.

Hon. Jos. F. Bonfield, Chicago, Ills.

Department of the Interior,
General Land Office,
Washington, D. C., March 24, 1879.

Sir: In the matter of the appeals by the city of Chicago, by the Illinois Central Railroad Company, and by Messrs. Britton, Gray and Drummond from my decision of February 12, 1878, in the case of the application of said Britton, Gray and Drummond to locate with Valentine scrip E. No. 159 a certain tract of land known as the addition to sec. 10, t'p 39 N., R. 14 east, 3d P. M., Ills., I have to advise you that on the 28th ultimo the honorable Secretary of the Interior reversed my said decision and rejected said application as to the entire tract applied for.

This rejection has this day been noted upon the records of this office and said scrip returned to the owners thereof. Evidence before Master.

Very respectfully, J. A. WILLIAMSON,
Commissioner.

Hon. Jos. F. Bonfield, Chicago, Ills.

Evidence on Behalf of Defendant Illinois Central Railroad Company.

May 5, 1887.

L. P. MOREHOUSE, being duly sworn, testified on behalf of defendant Illinois Central Railroad Company as follows:

By Mr. Ayer: How long did you reside in Chicago?

A. About thirty years.

Q. What is your profession?

A. Civil engineer.

Q. In what business did you engage when you first
346 came to this city?

A. I entered the service of the Illinois Central Railroad Company as a civil engineer.

Q. Have you been in the service of that company ever since?

A. I have.

Q. Who was the chief engineer of the Illinois Central Railroad Company in 1869?

A. L. H. Clark.

Q. How long had he been chief engineer?

A. About ten years.

Q. Who was his predecessor?

A. George B. McClellan.

Q. Were you in the office of those gentlemen while they were chief engineer of the railroad company?

A. I was.

Q. Are you familiar with the constructions and works of the Illinois Central Railroad Company along the lake front between the river and 16th street which have been made during the last twenty years?

A. Yes, sir.

Q. Did you ever hear anything of what is called the lake-front act, passed in 1869?

A. I have.

Q. Can you describe the line of the breakwater of the Illinois Central Railroad Company as it stood at the time of the

Evidence before
Master.

passage of the lake-front act, so called, on the 16th of April, 1869?

A. I can do it; yes, sir.

Q. Please describe the line of that breakwater from the river south as far as 16th street.

A. Beginning at the south pier, near the mouth of the river, at a point about 1,792 feet east of the west line of Michigan avenue, running thence south on a line parallel with the west line of Michigan avenue to the north line of Randolph street extended; thence west along the north line of Randolph street extended 420 feet; thence southwesterly to a point about 700 feet south of the north line of Randolph street and 600 feet east of the west line of Michigan avenue; thence south on a line parallel with the west line of Michigan avenue and 600 feet therefrom to the south line of 13th street extended; thence southeasterly to a point about 210 feet south of the south line of 14th street extended and about 360 feet east of the east line of Indiana avenue; thence east about 180 feet; thence southeasterly about 370 feet, parallel with the west line of the Illinois Central Railroad Company's right of way, to a point about 640 feet east of the east line of Indiana avenue, intercepting a pile pier extending about 180 feet further east into the lake; thence west along this pile pier about 180 feet to a point about 460 feet east of the east line of Indiana avenue; thence southwesterly, nearly parallel with the west line of the Illinois Central Railroad Company's right of way, to a point on the south line of 16th street extended about 240 feet 347 east of the east line of Prairie avenue. From the pile pier referred to as extending about 180 feet further into the lake then the described breakwater the breakwater extended northerly about 400 feet nearly parallel with the described breakwater and about forty feet east thereof.

Q. Will you look at the map now shown you and state whether that breakwater as you have described it is correctly shown upon the map? And, if so, please identify the line.

A. It is shown by the exterior red lines on the map, beginning at the river, running south to Randolph street; thence westerly to the slip; thence southwesterly to the right of way of the Illinois Central Railroad Company; thence south to 13th street; thence southeasterly to the southern terminus.

Q. Will you state whether this map is also a correct rep-

representation of the works of the Illinois Central Railroad Company along the lake from between the river and 16th street? Evidence before Master.

A. It is a correct representation.

Q. Do you know the situation of lot 21, south of and near to the round-house and machine shops of the Illinois Central Railroad Company in the south division of the city of Chicago?

A. I do.

Q. Will you state whether lot 21 is correctly represented upon this map?

A. It is.

Q. On what part of the map is it found?

A. Near to the extreme right hand of the map or south portion.

Q. What is the circular building immediately south of it and adjoining it, as appears upon the map?

A. The Michigan Central round-house.

Q. Where are the machine shops and round-house of the Illinois Central Railroad Company?

A. They are north of this lot 21 and east of the Illinois Central main track.

Q. How far north?

A. One of the shops comes immediately to the north line of lot 21 extended.

Q. Will you state how much of this ground represented on this plat the Illinois Central Railroad Company was in possession of on the 16th of April, 1869?

A. It was in the possession of the——

Q. Whether it was in possession of all the ground inside of the breakwater?

A. It was in possession of the ground inside of the breakwater, as indicated in this map.

By Mr. Holt: You mean the breakwater as represented by the red line?

A. Yes, sir; the breakwater I have described.

By Mr. Ayer: And how far west?

A. To the west line of the Illinois Central Railroad Company's right of way south of Randolph street, between Randolph street and South Water street to the east line of Central avenue; north of Water street to the line of the Michigan Central Railroad Company's ground, which line is not indicated on this map, however.

Evidence before
Master.

Q. Can you point out the Michigan Central freight-house on that map?

A. Between Randolph street and South Water street the Illinois Central Railroad Company was in possession of the ground extending to the east line of Central avenue, excepting a strip of ground owned by the Michigan Central Railroad Company and an undivided half interest owned by the Michigan Central Railroad Company, and a portion of the passenger depot grounds. North of Water street the Illinois Central Company was in possession of that west of the Michigan Central grounds, or that point about 500 feet east of Michigan avenue.

By Mr. Ayer: I offer in evidence the above map shown to witness and to which he has referred as Defendant Illinois Central Railroad Company's Exhibit Map Number 10.

Q. Will you state whether the Illinois Central Railroad Company was in possession of the ground north of Randolph street, situated on both sides of slip A, slip B, and slip C, at that time, as shown upon the map?

A. It was in possession of all the ground, including slip A and east of slip A.

Q. How was it south of 12th street?

A. It was in possession of all the ground east of the company's west line of right of way south of 12th street.

A. As far south as 16th street?

A. Yes, sir; the company's right of way and shop grounds at Weldon extending to the east line of Indiana avenue south of 14th street—a short distance south of 14th street.

Q. Who constructed this breakwater which you have described?

A. The Illinois Central Railroad Company.

Q. You have referred here to a street you have called Central avenue, running from Randolph street extended on the south to South Water street. Do you know who opened and dedicated that street?

A. The Illinois Central Railroad Company.

Q. Can you state whether it is the street referred to in the ordinance of the city of Chicago of September 10, 1855, in the following terms: "First, that the said company shall lay out upon its own land west of and alongside its passenger-house a street 50 feet wide, extending from Water street to

Randolph street, and fill the same up its entire length within 2 years from the passage of this resolution?"

A. It is.

Q. Do you know whether the Illinois Central Railroad Company did fill up that street?

A. The company did fill it.

Q. And furnish it to the public?

A. Yes, sir.

Q. When was it done?

349 A. The street was so filled and used by the public when I came here in April, 1857.

Q. Can you state what work had been done by the Illinois Central Railroad Company along this lake front, outside of this exterior breakwater of 1869, since the 16th of April of that year, between the 16th of April, 1869, and the 15th of April, 1873?

A. I think I can.

Q. I wish you would state what work was done, and, if you can, state as nearly as possible the cost of the expenditure between the two dates which I have mentioned, when it was done, where it was done, and the amount of the expenditure.

A. Between those two dates the pier No. 1 on this map, just south of the Chicago river, as shown on the map, was partially constructed. There was a large amount of filling done outside of the breakwater above referred to.

Q. You mean in that pier?

A. No, sir; in addition to that pier. It was done east of the Illinois Central Railroad Company's main tracks; some of it outside of the breakwater referred to before, and some inside of the breakwater.

Q. Where was that filling done, what point?

A. Principally north of Madison street.

Q. Where as indicated on the map?

A. East of the Illinois Central Railroad Company's main track and north of Madison street, some outside and some inside of the breakwater, and a large part of it in the triangular space indicated on the map and marked "built 1873." There was also a considerable amount of filling done near 14th street, in the lake at what is known as Weldon's shops. There was also a new engine-house constructed at Weldon upon a portion of the filling so made.

Q. Outside or inside the breakwater of 1869?

A. This engine-house was constructed outside of the

Evidence before
Master.

breakwater. There was also a large amount of new breakwater built south of 12th street, as indicated on the map and marked "built 1870."

Q. How far did that breakwater extend south?

A. From 12th street to the north line of lot 21, about.

Q. Was that built in 1870, that breakwater?

A. It was not entirely completed in 1870, but it was nearly completed.

Q. What kind of a breakwater was that?

A. A crib breakwater protection. There was also extensive work done repairing the breakwater between Randolph street and 14th street.

Q. That breakwater that you have referred to, constructed in 1870 from 12th street south to the south line of lot 21, was it a crib breakwater filled with stone?

A. Yes, sir.

Q. What were your duties at this time? How were you employed between 1869 and 1873? What was your position?

A. I was principal assistant engineer of the Illinois Central Railroad Company. I had charge of the office of
350 the chief engineer, the correspondence, the accounts, and the general preparation of drawings of work to be done.

Q. Can you tell approximately the amount of the expenditure on those works which you have described done between April, 1869, and April, 1873?

A. There was expended for the items which I have specified about \$230,000 between 1869 and 1873.

Q. When did the work commence?

A. The work referred to began in the spring of 1869, in April.

Q. Will you state, Mr. Morehouse, whether you drew at any time after the 16th of April, 1869, any plans for the improvement of the harbor, what is now the outer harbor of the city of Chicago, in front of the Illinois Central works, between the river and 12th street?

A. I drew such a plan.

Q. By whose direction?

A. Under the direction of the president of the company, Mr. John Newell, and the chief engineer, L. H. Clark.

Q. Have you the plan here?

A. I think it is here. I recognize this as a drawing made by me at the time.

Q. What improvements did the plan embrace?

A. Contemplated a series of wharves or docks extending into the lake from the Chicago river to the north line of lot 21.

Q. What was the length and width of those wharves?

A. They varied in length, according to the location. 1,440 feet is the shortest length and 2,420 feet the greatest length.

Q. Did they all extend out into the lake to a uniform line?

A. The east line of the docks was a straight line from north to south; a uniformly straight line.

Q. Were there slips between those wharves?

A. There were slips between those wharves 150 feet in width, the wharves or docks themselves being generally 600 feet in width.

Q. Was there anything contemplated outside of those wharves as shown by the drawing?

A. A breakwater extending north and south was to be constructed outside of those docks at a distance of 400 feet east of them.

Q. State when that plan was made by you.

A. It was made in May, 1869.

By Mr. Ayer: I now offer in evidence a tracing of this map or plat as Defendant Illinois Central Railroad Company's Exhibit Map No. 11. I offer the original and file a tracing by consent of counsel.

Q. I ask the witness to examine the tracing and state whether it is a correct copy of the plan he has referred to.

A. It is.

Q. Do you recollect of any objections having been raised by anybody to the works contemplated by the Illinois Central Railroad Company in the year 1870 or 1871; whether there was any interruption of the works?

A. I remember that the company was prevented by 351 a legal injunction from prosecuting the work on these proposed piers which it had contemplated.

Q. At whose instance was that injunction issued; do you remember whose suit?

A. I think an injunction in the United States court, on application of the United States district attorney for this district.

Evidence before
Master.

By Mr. McCagg: I wish to note an objection. I don't think that is the way to prove an injunction.

By Mr. Bradley: It is objected to.

By Mr. Ayer: How long was the work suspended?

A. I think the injunction was in the early part of 1871, and that the work was renewed, by permission of the United States Government, in the fall of 1871; but I couldn't swear positively as to those dates.

Q. Do you know whether, after that injunction had been issued, any plan for the improvement of this harbor or this lake front was submitted by the Illinois Central Railroad Company to the authorities at Washington?

A. I have no recollection of preparing a plan. At the same time I am aware that this plan was not approved by the authorities at Washington, and a modified plan was approved by them, upon which the piers north of Randolph street were subsequently constructed.

By Mr. Bradley: This is all objected to as incompetent and irrelevant.

By Mr. Ayer: Will you now state, Mr. Morehouse, what work has been done by the Illinois Central Railroad Company along the lake front outside of that breakwater of 1869 since April 15, 1873?

By Mr. McCagg: I object to the answer of the witness that a modified plan was approved by the Government.

— Since April 15, 1873, the Illinois Central Railroad Company has completed pier number 1; also constructed the piers numbered 2 and 3, as shown upon the map, north of Randolph street. It has also constructed a viaduct on the line of Randolph street extended, the eastern end of which is outside of the breakwater previously described. It has done a large amount of filling at Weldon, south of 12th street, and has built additional lake-shore protection south of 12th street, and has constructed a pier between 12th street and 13th street, extending into the lake, as shown on the map and marked "Built 1885."

Q. What was the cost of these works to which you have last alluded, approximately?

A. Over \$500,000. It has also spent a very large sum in repairs of the breakwater itself and the breakwater constructed in 1870.

Q. Will you now state what work the Illinois Central Railroad Company has done west of the breakwater between

the 16th of April, 1869, and the 15th of April, 1873? Have you it separated? Evidence before
Master.

A. I could not separate all the items. The principal work west of the breakwater was filling in the right of way and ground of the company.

Q. Will you state whether or not the right of way, 200 feet wide, extending from Randolph street down to 12th street, has been completely filled now with earth?

A. Yes, sir.

Q. When was the principal part of that done?

A. Just after the Chicago fire.

Q. What Chicago fire?

A. Of October, 1871.

Q. At whose expense was that done?

A. Expense of the Illinois Central Railroad Company.

Q. Previous to that filling how was the road constructed?

A. The track was upon a pile bridge extending from Randolph street to about 14th street.

Q. Can you give the amount of expenditure by the company for these works since the 16th of April, 1873?

A. What work do you refer to now?

Q. All of the work you have testified to. I mean all that west of the breakwater. Have you got them separated so you can state?

A. I could not at this moment.

Q. Can you state approximately the whole amount of the expenditure east and west of the breakwater since the 16th of April, 1869?

A. These expenditures aggregate about \$810,000.

By Mr. Bradley: That is, up to the present time?

A. Yes, sir; to the 1st of April this year.

By Mr. Ayer: I wish to call the attention of the witness to a map now shown him, and I will ask him if he can state what it is.

A. This is the map which shows the plan of construction approved by the War Department for piers numbered 1, 2 and 3 north of Randolph street and the plan upon which the piers have been constructed.

Q. Will you state what the red lines on this map indicate?

A. They indicate the second plan—the modified plan—proposed by the Illinois Central Railroad Company for the construction of these piers.

Q. And the black lines indicate what?

Evidence before
Master.

A. The piers, as at present constructed upon this plan, as approved.

By Mr. Ayer: I offer in evidence the following letter, signed by G. J. Lydecker, major of engineers, U. S. Army, to E. P. Jeffery, superintendent Illinois Central Railroad Company, dated November 22, 1880, and the accompanying plan or map, said letter being as follows:

"United States engineer's office, 25 Honore building.

"Chicago, Ill., November 22, 1880.

"E. T. Jeffery, sup't I. C. R. R. Co., Chicago, Ill.

Sir: On the 3d inst. I submitted the question of the 353 of the construction of docks in the outer harbor by the Illinois Central Railway Co. to the chief of engineers, U. S. A., and I have now the honor to inform you, in accordance with instructions contained in a letter from the chief of engineers, U. S. A., dated November 18, 1880, that the plan of docks has been duly approved.

"The following extract from the endorsement made by the chief of engineers on my letter of the 3d inst., when submitting the matter to the Hon. Secretary of War, is furnished you for your information:

"(Extract.)

"1st. indorsement.

"Office Chief of Engineers, U. S. Army.

"November 11, 1880.

"Respectfully submitted to the Hon. Secretary of War.

* * * * *

"Major Lydecker, corps of engineers, the officer in charge of Chicago harbor, has, at the request of the company, submitted the question to this office with favorable recommendation, which is concurred in. It is therefore recommended that work already done and proposed to be done by the Illinois Central Railroad Company to the limits indicated in the tracing accompanying Major Lydecker's letter be approved so far as the U. S. is concerned, it being understood that this qualified approval of the work which is being done shall not be construed as affecting questions of title or right to con-

struct a wharf or wharves south of the north line of Randolph street.

Evidence before
Master.

*(Signed)

H. G. WRIGHT,

"Chief of Engineers, Brig. & B't Maj. Gen'l.

"The above recommendation was approved by the Hon. Secretary of War Nov. 16, 1880.

"A copy of the tracing referred to in the above indorsement is transmitted herewith.

"Very respectfully,

G. J. LYDECKER,

"Major of Engineers, U. S. A."

I furnish a copy of the tracing by consent and a copy of the letter in place of the originals and offer them in evidence as Defendant Illinois Central Railroad Company's Exhibit Map No. 12.

By Mr. Bradley: Letter of Maj. Lydecker is objected to as incompetent and irrelevant.

By Mr. Ayer: Will you state, Mr. Morehouse, who has been in possession of the property now included in what is known as the Illinois Central right of way from Randolph street south as far as 12th street since you have been in Chicago?

A. The Illinois Central Railroad Company.

Q. Will you state in regard to all the property lying south of Randolph street bounded on the east by the breakwater, which is delineated in a red line on the tracing map No. 10, which you have identified, and on the west by the west line of the right of way as far south as 12th street, in whose possession the property has been since you have been in Chicago?

A. In the possession of the Illinois Central Railroad Company, with the exception, perhaps, of a small triangle just south of Randolph street, which the Illinois Central Railroad Company did not actually occupy until some time after I came here.

Q. How long after?

A. My impression is that the Illinois Central has occupied this triangle referred to since about 1865, I think.

Q. How is it in regard to the ground included within the right of way south of 12th street and between 12th and 16th

Evidence before Master. streets; in whose possession has that been since you have been in Chicago?

A. In the possession of the Illinois Central Railroad Company.

Q. How is it in regard to the land lying east of the 200 feet of right of way between 12th and 16th street; in whose possession has it been?

A. At the point where the Illinois Central round-house and machine shops are located, south of 14th street, the railroad company has been in possession of the land extending considerably east of the east line of the right of way since I came here. North and south of these buildings the company has been in possession of land outside of the breakwater existing in 1869 since about 1870.

Q. Has there ever, to your knowledge, been any adverse possession of any part of those premises or any disturbance of the possession of the Illinois Central Railroad Company since you have been in Chicago?

By Mr. Fuller: Objected to as leading.

Q. Has anybody else, to your knowledge, been in possession of any portion of the ground to which I have called your attention since you have been in Chicago?

A. No, sir; except by permission of the Illinois Central Railroad Company.

Cross-examination by Mr. Fuller:

Q. What year did you say you came here?

A. 1857.

Q. What part of the year?

A. The month of April.

Q. When you came here what were the tracks of the Illinois Central Railroad Company laid on between Park row, say, and the north line of Randolph street?

A. A pile bridge.

Q. Was there any water between those tracks and the shore?

A. Yes, sir.

Q. During the period from 1857 to 1871 did you ever see any boats on that water?

A. I have.

355 Q. Do you testify that of your own knowledge persons using boats on that water got permission of the Illinois Central Railroad Company?

A. I think the only permission obtained by such parties was to pass through the bridge, which was not always possible for boats of a certain size, and therefore the company on some occasions were asked to form a larger water-way or passage-way for boats.

Q. But boats of certain other sizes could go right between the piles, couldn't they?

A. Yes, sir.

Q. Haven't you done it yourself, Mr. Morehouse?

A. I have.

Q. And now what was the possession that you say the Illinois Central Railroad Company had of the ground covered by water between its tracks and the shore between Park row and Madison street?

A. It was the possession which it exercised whenever it desired to do any work upon that portion of its right of way.

Q. What do you call the right of way?

A. I call the right of way between Randolph street and Park row a strip 300 feet in width as defined by a city ordinance of some time in 1852, I think.

Q. How wide is the right of way, in fact—that is, how much of the 300 feet has been devoted to the tracks?

A. 200 feet have actually been filled and used.

Q. The other 100 feet lies east of that 200, doesn't it?

A. Yes, sir.

Q. Now, between the right of way and the shore, do I understand you to testify that the Illinois Central Railroad Company had possession of the property—the water?

A. No; I didn't intend to say so.

Q. In reference to the triangle which is marked on the map 10 as built in 1873, and being east of Madison street, does so much of that triangle as is south of Madison street fall within the 300 feet or substantially so?

A. Yes, sir; most of it.

Q. How much did you say the company had expended between April 16, 1869, and April 15, 1873?

A. I think I said over \$200,000; the amount is about \$230,000; or, if you will allow me, I will repeat, if I said \$230,000 then I would say \$230,000 now.

Q. Can you give the items of the expenditure?

A. Yes, sir.

Q. Please do so.

A. That is, the amount for each item?

Q. Yes, sir.

Evidence before
Master.

A. For pier number 1, about \$25,000; filling north of Madison street, about \$53,000; new-crib work at Weldon, about \$66,000; filling at and near Weldon, about \$14,000; new engine-house at Weldon, about \$61,000; repairs of protection, about \$14,000.

356 Q. When you say repairs \$14,000, repairs of what—the works existing before 1869?

A. Yes, sir; before 1869.

Q. Where is Weldon?

A. Weldon is that portion of the Illinois Central Railroad Company's grounds containing its round-houses and machine shops, etc., lying between 13th street and we will say lot 21.

Q. The south line of lot 21?

A. And the south line of lot 21; yes, sir.

Q. I understood you to say that you made a sketch or plan of the proposed improvement numbered map 11 in May, 1869?

A. Yes, sir.

Q. What time did you commence on this sketch?

A. I am unable to give the—

Q. About.

A. I am unable to say whether it was about the 1st—it was nearer the first of May than the latter part of May; I can say that; it is possible and I think quite likely that the work was begun in April. I think May is the time that it was completed. Probably the work was begun some time in April.

Q. You said, in answer to Mr. Ayer, that you became aware that it was not approved of. How did you become aware?

A. I am unable to say exactly how I became aware. It was known through the offices of the company and in our office that the work was stopped. I am unable to say exactly how the information was imparted to me.

Q. Well, however it was imparted, what was the source of it; who wouldn't adopt it?

A. The United States authorities.

Q. Was there any meeting of the board of directors about that time, do you know?

A. I have no personal knowledge, sir, of the meetings of the board.

Q. Have you any personal knowledge of any meeting of

the board from 1869 to 1870, inclusive, at which such a sketch was adopted? Evidence before Master.

A. I was never present at such a meeting.

Q. So that this rumor or information which was circulated in the office was in reference to the action of the United States Government?

A. Yes, sir.

Q. What is the distance on the map No. 10 of the Illinois Central right of way, etc., from the red line to what is delineated on that map as the dock line?

A. I don't know as I can say exactly. I should have to scale that; my recollection is not clear as to that.

Q. What is the scale of the map?

A. Four hundred feet to the inch. By the scale it seems to be 1,300 feet, about.

357 Q. From the breakwater as it was in 1869 to the dock line delineated on the map?

A. About 1,300 feet.

Q. What is the distance from the dock line to the Government breakwater?

A. My recollection is that the dock line was to be 2,000 feet from the Government breakwater south of Randolph street.

Q. When was that dock line established, if you know?

A. I think it was in 1871.

Q. What was it that was stopped by injunction of the United States court? What was the Illinois Central Railroad Company doing, to your knowledge, that was stopped by that injunction?

A. The Illinois Central Railroad Company was at that time filling what is marked here as dock C, and had constructed an open pile bridge in the lake to reach that dock with its teams. It was contemplating, as was understood, I think, by the public, the construction of piers extending further into the lake. This injunction, as I understand the matter, was to prevent the Illinois Central from prosecuting the work east of slip C or making any further encroachments upon the lake in any way near the Chicago river.

Cross-examination by Mr. Thompson:

Q. This map does not indicate with accuracy the amount of land that existed in 1869, does it?

A. The shore line as it existed in 1869 is not represent-

Evidence before
Master.

ed with entire accuracy upon this map, especially at the northern end of the map.

Q. I understand you to say that this shows the condition of the land as it is now?

A. I think it represents the land as it is at the present time.

Q. Have you any map that will indicate the amount of land and the condition of the shore in April, 1869, or can you compile such a map from what is contained in your office?

A. I hardly think that it would be possible to compile an accurate map of the shore line as it was in 1869 from any data that we have.

Q. Was the right of way filled, or any portion of it, before 1873, between Park row and Randolph street?

A. Yes, sir.

Q. How much of it?

A. My recollection is that the greater portion was filled before 1873.

Q. Do you mean to be understood as saying that most of this 200 feet right of way in front of fractional section 15 was done between 1869 and 1873?

A. I think so.

Q. Have you any map in your office or any facts from which you can compile a map showing the condition of the shore in 1852, when the Illinois Central commenced its construction between 16th street and the river?

358 A. This map shows that line.

Q. What line indicates the shore line?

A. The dotted line just east of Michigan avenue.

Q. I see that line goes as far north as Randolph street; is there anything in this map showing the shore line north of Randolph street in 1852?

A. There is nothing on this map.

Q. Can you project it as it was in 1852?

A. I think so.

Q. Would it be substantially a continuation of this dotted line in a direct line towards the depot?

A. No, sir; it would tend to the northeast.

Q. Have you a map in the office that will show the line of the shore between Randolph street and the river in 1852?

A. I think so.

Q. Will you produce it before the master?

A. If that is the map you want, we can find that map.

Q. It is a fact, is it not, Mr. Morehouse, that all the land east of this dotted line representing the shore line of 1852 has been made by the Illinois Central Railroad Company, with the exception of the part between the west line of the right of way and Michigan avenue between Park row and Randolph street?

A. Yes, sir.

Q. Do you know when the Illinois Central Railroad Company began making land in the water, between Randolph street and the river?

A. I have no personal knowledge of that, sir.

Q. About how much had been made in 1857, when you came?

A. The shore line extended then in a southeasterly direction from about the southeast corner of slip B to a point on the line of Randolph street extended, I should say, about 500 or 600 feet east of the west line of Michigan avenue.

Q. Was the railroad company engaged in filling when you came here?

A. Yes, sir.

Q. Has it kept up that process continually from that time to the present?

A. Yes, sir.

Q. Without interruption?

A. Practically without interruption.

Q. Has the filling been going on north of Randolph street continuously from 1857 to the present time?

A. No, sir; there have been periods when no filling was being done there.

Q. How is the ground occupied, which is marked A and B, near the river?

A. By grain elevators and the tracks running to them.

Q. How is the ground occupied immediately south of A and B, between that and Randolph street?

A. By tracks into the freight yard of the company.

Q. How is C, built in 1867, occupied?

359 A. Principally by lumber and tracks.

Q. Is it under the control or leased by the Illinois Central Railroad Company?

A. It is.

Q. How are the piers or the docks marked 1, 2, and 3 occupied?

A. They are also occupied by lumber yards and tracks, principally.

Evidence before
Master.

Q. The tracks are the tracks of the Illinois Central Railroad Company, are they not?

A. They are.

Q. And the lumber yards are the lumber yards of private individuals, or the company's?

A. Of private individuals.

Q. Do they pay rent to the railroad company?

A. They do.

Q. When you came here in 1857 was any filling being done north of Park row, at Weldon, between Park row and 16th street?

A. No filling except the depositing of cinders and the like which would accumulate from the shops.

Q. In 1852 it appears that the shore line at Weldon was near Indiana avenue, and the lake in front of it has since been filled up; do you know when that filling took place?

A. The most of it has been done since 1870.

Q. Was it filled out to the breakwater in 1869?

A. Not so far south as 12th street.

Q. They had been filling, had they not, before you came here, between 12th street and 16th street?

A. I think not.

Q. How soon after you came here was any commenced?

A. There was no large amount of filling done until about 1870, I should say.

Q. Was any of it done—any of that land in front of that dotted line—before 1869?

A. Yes, sir; there was some land east of that dotted line.

Q. When were these buildings immediately southeast of lot 21 constructed?

A. Before I came to Chicago, with the exception of the building furthest north, which is the round-house referred to by me as having been constructed after 1870.

Q. And the larger part of the buildings nearest lot 21 and northeast of it appear to be placed upon land which was water in 1852. That filling had been done before that, had it not?

A. I understand at that point there was a point of land extending out beyond those buildings, and that these buildings were constructed upon the natural land there, which at one time extended a considerable distance beyond.

Q. I understand you to say that some of the filling between 12th street and 16th was done before 1869, but most of it was done subsequent to 1869?

A. Yes, sir.

360 Q. Now, do you know under what claim of right the railroad company did any filling between 12th street and 16th street, in front of this original shore line, prior to 1869?

A. I suppose, sir, that the railroad company had always the right to fill and occupy its right of way.

Q. Outside of the right of way?

A. I don't think anything was, outside of the right of way.

Q. Anywhere on the shore?

A. The points indicate it.

Q. You think the filling was confined to the right of way, then?

A. Yes, sir.

Q. Prior to 1869?

A. Yes, sir.

Q. How was it north of Randolph street—was the filling confined to the right of way north of Randolph street?

A. I never understood, sir, that the company had what you may call right of way north of Randolph street, but that it owned exclusively the property east of Michigan avenue, running down to the lake, without any reference to any right of way.

Q. And that ownership gave them the right to fill?

A. I always so understood it.

Q. And the filling was done in consequence of that ownership—by virtue of that?

A. I suppose so.

Q. You know of no other? How far out do you understand that extended?

By Mr. Ayer: Objected to as a legal question and on the ground that it asks for the witness' opinion.

A. I understand, sir, that a riparian owner has the right to occupy the shore or outside of the shore, subject only to the jurisdiction of the General Government, except within the limits of a harbor, which would also come under the General Government.

Q. And, so far as you know, this filling in the lake north of Randolph street was done under the claim of the right to do so by virtue of the ownership of the shore, and that applied to the filling that had been done prior to 1869, did it not?

A. Under that right and the consent of the United States Government and the city authorities.

Q. You don't mean to be understood as saying that any

Evidence before
Master.

of this extension of the filling which had been going on prior to 1869 was in consequence of the law of 1869?

A. I don't think, sir, that I have referred to the law of 1869 before, but I do understand that the Illinois Central Railroad Company claimed, in addition to its original riparian rights, the authority to occupy a certain portion of the waters of Lake Michigan in accordance with this so-called lake front of 1869, which gave them additional rights.

Q. Do I understand you to say that your understanding of that position is that they would not have the right to fill, except for the passage of the law of 1869, north of Randolph street?

361 (Objected to by Mr. Ayer.)

A. I have no opinion to express on that subject.

Q. Will you point out on the map all the filling that has been done by the Illinois Central Railroad Company since 1869 in front of any place where the railroad company does not own or claim to own the shore?

A. I don't think I am competent to speak as to the claim of the Illinois Central Railroad Company as to the ownership of shore rights. Therefore I should hesitate to answer that question.

Q. I understood that you said you understood they owned all the shore from Randolph street north to the river?

A. Yes, sir.

Q. Don't you understand also that they own or claim to own substantially all the property between where they have done any filling south of 12th street, between that and lot 21?

A. Yes, sir.

Q. Will you point out between those points all the filling the railroad company has done since 1869?

A. It is impossible to locate the west line of that filling, but the east line is correctly represented on the map.

Q. Confine yourself only between the north and south lines.

A. The railroad company has done filling all along between those points between 12th street and Randolph street, with the exception of a small portion of ground immediately south of Randolph street, I should say.

Q. When you say they filled all along, you mean they filled the right of way 200 feet wide?

A. I did not intend to say that the railroad company had filled their entire right of way between those points since

1869. I don't mean to be understood that they have filled the entire right of way at any point between 12th street and Randolph street, but that they have filled some portion of it all the way since 1869.

Q. Has or has not the filling which the Illinois Central Company has done since 1869 been confined to its right of way, 200 feet in width, between 12th and Randolph streets?

A. No, sir.

Q. State how much more it has done.

A. North of Monroe street some filling has been done outside of the 200-foot strip you refer to.

Q. This small triangle which has been filled outside of that right of way in the vicinity of Monroe street is not covered with tracks, is it, now?

A. Yes, sir.

Q. And this triangle was built for the purpose of getting a better curve and more convenient to the docks?

A. Yes, sir.

Q. That was the sole purpose of it, was it not?

A. So far as I am aware.

Q. Then, do you know of any money or any work 362 which has been expended by the Illinois Central Railroad Company upon any portion of the property in question, except where they own or claim to own the shore line, with the exception of the triangle you mention, in filling the right of way since 1869? If so, give the amount which has been expended in the way of money.

A. I know of no amounts so expended.

Q. You say that this plan that you drew for the docks and piers was not approved by the authorities in Washington, the original one?

A. Yes, sir.

Q. You gave the impression, I think—I don't know whether you intended to or not—that the work was not prosecuted in consequence of a want of approval of that map; do you mean to be so understood?

A. I think the work was not begun until the plans were approved.

Q. When was the plan for dock C approved?

A. I do not know, sir.

Q. The filling went on from 1869 to 1871, did it not, on dock C?

A. Yes, sir.

Evidence before
Master.

Q. And it went on until you were stopped by the injunction of the United States court, did it not?

A. Yes, sir.

Q. Then you do not mean to be understood as saying that the railroad company refrained from filling the lake in consequence of any want of approval of the map?

A. I did not understand that the previous question referred to anything inside of the breakwater. The filling referred to now is inside of the breakwater, which was constructed before 1869.

Q. Where was the company filling in the winter if they did not fill any in the winter of 1868 and 1869?

A. I should think the filling, then, was principally east of slip C.

Q. East of slip C?

A. East of slip C.

Q. That is, in dock C?

A. Dock C; yes, sir.

Q. They were at work on that in 1868?

A. I think so.

Q. And kept on until 1871, when they were stopped by the injunction of the United States court; is that true?

A. That is my recollection.

Q. When was this pier which is marked "built 1885" commenced?

A. I should say it was commenced in 1885.

Q. You gave the amount of money which the railroad company had expended since 1873. Can you tell how much of that money has been expended since about March 1, 1883, the time of the commencement of this suit?

A. I am unable to do so at this time.

Q. What was the cost, as you have it, of the construction of this dock which was built in 1885?

363 A. It was about \$127,000.

Q. Do you know of any cessation of the work of filling which the railroad company has been doing since you came here to the present time, about March, 1883, or since then?

A. I do not recall any particular occasions.

Q. And is it also true that there was no particular occasion?

A. Except as heretofore referred to, this injunction.

Q. Continuation of the work of April, 1869, is it not, from that time on?

A. There were times, of course, when the filling went on much more rapidly than it did at others. Evidence before
Master.

Q. So far as you know there was no particular zeal manifested in the spring and summer of 1869, and no want of it in the spring and summer of 1883?

A. In 1869 and for several years thereafter and immediately preceding, there was a large amount of filling done. I am unable now to state what particular year the most of the work was done.

Cross-examination by Mr. Fuller:

Q. The filling under the right of way from Park row to Randolph street, I understand you to say, was principally done after the 9th of October, 1871, namely, after the great fire?

A. Yes, sir.

Q. What was the character of the filling, was it earth brought in by the company, or did it consist in any part of the debris of the city?

A. Consisted largely of the debris of the city after the fire.

Q. At the same time, was not the space between the tracks and the shore filled in with the debris of the burned city?

A. Yes, sir.

Cross-examination by Mr. Bradley:

Q. How many main tracks are there from Randolph street to the south of the city, to the city limits?

A. There are six main tracks.

Q. That makes twelve rails.

A. Yes, sir.

Q. Do you lease the right to come in on some of those tracks to other railroad corporations?

A. We do.

Q. Among others you have leased to the Chicago, Burlington and Quincy, have you not?

A. Not for a number of years.

Q. The Michigan Central?

A. Michigan Central; yes, sir.

Q. Baltimore and Ohio?

A. Yes, sir.

Evidence before
Master.

Q. Any other companies you remember?

A. No other road.

Q. Do you remember any other besides those you have mentioned at any time?

364 A. At one time the Chicago, Burlington and Quincy did occupy a portion of those tracks.

Q. Any others?

A. I said we do not lease to the Chicago, Burlington and Quincy; that is a long time ago.

Q. You don't now?

A. No, sir.

Q. Have you at any time, to your knowledge, leased to any railroad company except those that have been mentioned?

A. I recollect no others.

Q. This dotted line (indicating the old shore line of 1852) is not the line you surveyed yourself, is it?

A. No, sir.

Q. You came here in 1857. This dotted line does not show, you say, the shore as it existed in 1852, where the Illinois Central roundhouse now stands?

A. The map does not show that.

Q. This dotted line does not show that?

A. No, sir.

Q. You don't know, of your own knowledge, whether this dotted line is strictly correct—say between Randolph street and Hubbard court?

A. I do not of my own personal knowledge.

Q. You took it from some plan, I suppose?

A. Yes, sir.

By Mr. Fuller: Do you know, Mr. Morehouse, who who drew the debris of the burned city to fill up under the tracts—whether it was done by persons employed by citizens or by persons employed by the company?

A. Both, sir; mostly, doubtless, by the citizens.

Redirect examination:

Q. Will you state whether or not there is a track laid on pier number 3, belonging to the Illinois Central Railroad Company and used by it?

A. There is.

Q. Will you state how the lumber which is piled in the

lumber yards on the piers north of Randolph street reaches those yards? Evidence before Master.

A. By vessel from ports on the lake.

Q. By vessels?

A. Yes, sir.

Q. How is the lumber shipped from Chicago?

A. By rail.

Q. How do the cars reach these lumber yards?

A. Over tracks owned by the Illinois Central Railroad Company upon these piers and connecting with the main tracks.

Q. Large amount of that business done?

A. There is.

Q. How are the elevators A and B occupied, to which your attention has been called?

365 A. Used for storing grain brought to the city.

Q. How is the grain brought to the city that is stored in those elevators?

A. By rail, principally.

Q. Over what railroad?

A. The Illinois Central almost exclusively.

Q. What other accommodations has the Illinois Central for storing grain brought into Chicago over its road?

A. None that I am aware of.

Q. Are you a lawyer?

A. No, sir.

Q. Do you pretend to know by what right the railroad company claims to fill out into the lake north of Randolph street or under what right it did fill prior to 1869?

A. Only in a general way.

Q. Do you not know that the charter of the Illinois Central Railroad Company authorizes the company to take possession of any land belonging to the State in addition to its 200 feet right of way that is necessary for the uses of the company?

A. I believe the charter has that provision.

Recross-examination by Mr. McCagg:

Q. Are those elevators rented to private individuals?

A. I think not.

Q. Are they rented at all?

A. I think not. Allow me to correct that. I am not suffi-

Evidence before
Master.

ciently informed with regard to that department of the company's business to answer that question.

Q. You don't know whether they are rented or not, then?

A. I do not at the present time.

Q. Who superintended the construction of the viaduct that you have spoken of?

A. The division engineer, T. M. Kellogg, at the time.

Q. Who drew the plans?

A. I could not say.

Q. When did it commence?

A. I do not know.

Q. Have you included its cost in the items you have given here?

A. No, sir.

Q. Not at all?

A. I think it did not include it.

Q. I would like to know whether you know.

A. I do not think it is included, but I would not say positively that its cost is not included. I think it is not.

Q. You have been testifying from a memorandum of cost, have you not?

A. Yes, sir.

Q. Did you pay any of those amounts yourself?

A. No, sir.

Q. How do you know they were paid?

366 A. I know the Illinois Central Railroad Company has had the reputation of paying all its bills, and I have very good reasons to believe that if those bills had not been paid I should have heard of it before this time.

Q. That is all you know about it, is it?

A. No sir; I know that I made out a good many of those bills myself, and I know that they went through the regular accounts of the company, and that I am morally certain that they were paid.

Q. For what purpose did you make the memorandum you have in your hand, from which you have been testifying?

A. To enable me to testify at this time.

Q. Did you make it yourself?

A. Partially.

Q. How much of it did you make and how much did you not make; did you take it from the books, and is that your handwriting?

A. I took this, sir, partially from the books of the com-

pany and partly from a statement furnished by the general auditor of the company.

Q. How largely was it taken by you from the books and how largely from the statement furnished by the auditor?

A. Since 1883 by myself.

Q. All prior to that by the auditor?

A. The auditor and the division engineer previous to that.

Q. Was it intended to represent an accurate statement of the expenses incurred by the company within the times you have named upon and in relation to the matters which you have been talking about?

A. An accurate statement, in round numbers.

Q. Why can you not tell, then, whether the cost of the bridge is in it?

A. Because it is possible that the cost of the bridge might be included in the item for filling.

Q. Then the cost of that bridge may be in those items, may it?

A. It is possible, sir.

Q. Have you any idea what that bridge cost?

A. I suppose it would cost perhaps \$5,000.

Q. How long is it?

A. I have been mistaken in my testimony in regard to the bridge. I did not understand what you referred to. I referred to a pile bridge built at one time for the purpose of bringing filling onto dock C, and my testimony was wrong with regard to that also, because that was built before the time we were talking of.

Q. Who superintended the construction of the viaduct?

A. Mr. E. T. Jeffery, general manager, had charge, I believe.

Q. Do you mean by that that he superintended it?

A. I don't know who had the personal superintendence.

Q. Do you know whether the cost of that viaduct is included in the items you have given?

A. The cost of the part of the viaduct extending beyond the breakwater lines, as shown on the map, is included in this statement.

Q. What does that amount to?

367 A. That amounts to about \$46,000.

Q. Where is it?

A. This viaduct extends on the line of Randolph street from Michigan avenue nearly to the waters of Lake Michigan.

Evidence before
Master.

Q. What is the length, about?

A. I don't remember the length.

Q. As near as you can tell.

A. That viaduct is about, including the approaches, I think, 1,700 feet long.

Q. What line of Randolph street is it one?

A. It is near the south line of Randolph street.

Q. In what would be Randolph street if Randolph street were continued through to the lake east from its present terminus?

A. Yes, sir.

Q. What is it built of?

A. Built of iron. The approaches are of masonry; the superstructure of the viaduct proper is of iron.

Q. What proportion of the whole thing is approach and what proportion viaduct proper?

A. I had nothing to do with the construction of that viaduct and am not prepared to answer with regard to that.

Q. Can you give me an idea?

A. I am not sufficiently posted on that.

Q. Are two-thirds approach and one-third viaduct?

A. No, sir; the approaches are much less than in that proportion. The approaches are comparatively a small portion.

Q. How far eastward into the lake are your piers extended beyond the dock line south of Randolph street?

A. 800 feet.

By agreement of counsel the taking of further testimony is adjourned to Friday, May 6, 1887, at 10 o'clock a. m.

May 6, 1887.

Present: Messrs. Williams & Thompson, McCagg & Culver, for complainant; Messrs. B. F. Ayer and Lyman Trumbull, for defendant Illinois Central Railroad Company, and Mr. M. W. Fuller, for the City of Chicago.

E. T. JEFFERY, being first duly sworn, testified on behalf of defendant Illinois Central Railroad Company as follows:

By Mr. Ayer: How are you employed?

A. General manager of the Illinois Central Railroad Company.

Q. How long have you been general manager?

A. Sixteen months.

Q. What was your position immediately prior to your appointment as general manager?

A. General superintendent of the Illinois Central Railroad Company and acting chief engineer.

Q. How long did you occupy that position?

A. Eight years and eight months.

368 Q. How long have you been connected with the Illinois Central Railroad Company in one capacity and another?

A. Thirty years and six months.

Q. Where have you resided during that period?

A. In Chicago, Illinois.

Q. Where have your duties been since you have been in the service of the railroad company?

A. Principally in Chicago; for twenty years principally at Weldon shops, and generally, for fifteen years past, all over the lines of the Illinois Central road.

Q. Are you familiar with its works and property along the lake shore in Chicago between the river and Sixteenth street?

A. Yes, sir.

Q. Do you know the triangular piece of ground situated between what would be the north end of the east line of the 260 feet right of way on the west, Randolph street on the north, and the breakwater of the Illinois Central Railroad Company as it was in 1869 on the southeast? I will show you the plat.

A. Yes, sir; I know that piece of ground as shown on the map. I am now looking at map number 10.

Q. I refer to the piece of ground that is described in the ordinance of September 15, 1856, and which is there described as follows: "The space between its present breakwater and a line drawn from a point on said breakwater 700 feet south of the north line of Randolph street extended, running thence on a straight line to the southeast corner of its present breakwater and thence to the river."

A. Yes, sir.

Q. What is it used for?

A. A part of the freight yards of the Illinois Central Railroad Company in Chicago.

Q. How long has it been so used?

A. I cannot state; been so used as long as I can remember.

Evidence before
Master.

Q. What is the necessity for its use and what has been the necessity for its use by the railroad company?

A. It is required as forming a throat to the freight yard, the tracks of which are fan-shaped. It is also required to give access to elevators A and B, to vessels in slips B and C and the two slips between docks 1, 2, and 3. It is also required for access to the draw-bridge across the Chicago river at the end of wharf or dock B.

Q. Will you state whether or not those tracks are essential to the convenient operation of the road?

A. Absolutely so.

Q. Will you state how the traffic has been in those respects during the last thirty years?

A. So far as I recollect during the last thirty years the necessities have been urgent, although not so urgent as during the last five or ten years. The necessity for the use of that land grows with the growth of traffic.

Q. I now call your attention to the permission given to the railroad company by the ordinance of September 10, 1855, as follows: "Permission be, and the same is hereby 369 granted to said company to curve its tracks westerly over the line fixed by said ordinance (of 1852) so as to cross said line at a point not more than 200 feet south of Randolph street extended, and curving said tracks southwesterly as they approach the depot and crossing the north line of Randolph street extended at a point not more than 100 feet west of the line fixed by the ordinance aforesaid." Will you state, Mr. Jeffery, whether the railroad company has availed itself of the permission thus granted?

A. It has.

Q. What was the necessity of doing so?

A. Access to the joint passenger station grounds of the Illinois Central and Michigan Central Railroad Companies could not have been had without the ordinance and the use of the ground covered by the ordinance.

Q. Where is that joint passenger station situated?

A. East of Central avenue and south of Water street.

Q. Is it immediately adjoining Central avenue?

A. East of and immediately adjoining Central avenue and South Water street.

Q. By what companies has that station been occupied?

A. By the Illinois Central and Michigan Central Railroad

Companies, and in past years the Chicago, Burlington and Quincy Railroad Company.

Q. For what length of time has it been occupied as a passenger station?

A. To my knowledge, since October, 1856.

Q. At the time you came to Chicago was the depot there?

A. Yes, sir.

Q. When you came to Chicago, in 1856, what was the condition of the right of way or roadway of the Illinois Central Railroad Company from what is now called Park row, near 12th street, to Randolph?

A. A pile bridge, with water all around it, and a breakwater on what, I suppose, was then the east line, or near the east line of the right of way of the company.

Q. Will you state whether there was or not a body of water between the railroad company's right of way and Michigan avenue?

A. There was.

Q. Will you state whether the roadway of the Illinois Central Railroad Company has since been entirely filled with earth?

A. It has.

Q. Do you know by whom it was done?

A. Not of my own personal knowledge.

Q. When was it done?

A. My recollection is that it was done principally, and I might say nearly wholly, after the great Chicago fire of October, 1871.

Q. How is that ground occupied now?

A. For main tracks of the Illinois Central Railroad Company, which tracks are used also by the tenants of the railroad company.

370 Q. By what companies?

A. The Michigan Central Railroad Company, the Baltimore and Ohio Railroad Company, and for transfer purposes in freight traffic by the tracks, engines and cars of nearly every other railroad entering Chicago.

Q. Please look again at map No. 10 and state whether you can trace a line of the Illinois Central Company's breakwater as it was in 1869.

A. I observe on map 10 a red line marked breakwater as it was in 1869.

Q. Extending all the way from the river——

Evidence before
Master.

A. From the river to Sixteenth street.

Q. Will you state how that corresponds to your recollection of the facts?

A. It corresponds to my recollection of the facts from Randolph street to Sixteenth street, but I could not answer, having no recollection as to the breakwater north of Randolph street in 1869.

Q. Can you state when piers Nos. 1, 2 and 3, which are delineated on the map north of Randolph street, were constructed?

A. I cannot answer as to pier No. 1, because it was built before I had charge of that branch of the service. Pier No. 2 was built mainly in 1881 and pier No. 3 mainly in 1880, as I now recollect.

Q. Do you know anything about the plans for the construction of those two piers—by whom they were constructed?

A. They were drawn by the company's draughtsman under my direction and were submitted to me and by me submitted to the resident engineer of the United States Government in Chicago.

Q. Who was that resident engineer?

A. Major Lydecker.

Q. Do you remember his given name?

A. G. J. Lydecker.

Q. I will call your attention to a letter which was introduced in evidence yesterday, purporting to be a letter from Mr. Lydecker to yourself, dated November 2, 1880. Will you state whether that is a genuine letter, and, if so, when it was received by you?

A. Yes, sir; that is the letter from Major Lydecker introduced in evidence yesterday afternoon and was received by me on or about November 22, 1880.

Q. Are you acquainted with his handwriting?

A. Yes, sir.

Q. Is that his genuine signature to the letter?

A. Yes, sir.

Q. What was his position at that time?

A. He was resident engineer in Chicago for the United States Government and in charge of the harbor improvements.

Q. I now call your attention to the signature of G. J. Lydecker on the map accompanying that letter, and state whether that is or not his genuine signature.

A. Yes, sir; I should think that is his own signature.

Q. Was that map received with the letter?

371 A. Yes, sir.

Q. Were the piers constructed in accordance with the plan indicated on the map?

A. Yes, sir.

Q. Remember what they cost?

A. I could not state with accuracy the cost; probably piers 2 and 3 together cost about \$150,000.

Q. Will you state whether any other work has been done by the railroad company outside that line of breakwater shown in the red line upon the map since 1869. If so, state in detail what the work is.

A. Not being familiar with the breakwater line north of Randolph street in 1869, I could not answer.

Q. Assuming it to be correctly shown upon the map?

A. Assuming the correctness of the breakwater line as delineated on the map, the work constructed outside of that line—that is, east of that line—since 1869 would be piers 1, 2 and 3 north of Randolph street; a strip of land about the width of Randolph street and due east therefrom south of slip C and wharf C; a triangular piece of land between Monroe street and a little north of Washington street; two bulkheads, one near Harrison street and one near Peck court, to repair breaks in the protection or breakwater caused by storms; 13-street pier or wharf and breakwater, with earth filling west of it from 12th street to near the south line of lot 21, and a breakwater; thence south to the center of Sixteenth street; thence again east to the right-of-way line of the Illinois Central Railroad Company, except an opening of 100 feet which was left in this last-described piece of breakwater, lying east and west on the line of 16th street.

Q. Has there been any filling done in that vicinity besides the construction of the pier at the foot of 13th street?

A. Yes, sir; all west of the breakwater as now existing has been filled to near the south line of lot 21.

Q. When was the large round-house shown upon the map at the foot of 14th street constructed?

A. I can't answer accurately as to that; my recollection is about 1873.

Q. Was it since 1869?

A. Yes, sir.

Q. State whether there has been a viaduct constructed

Evidence before
Master.

from the foot of Randolph street across the tracks of the Illinois Central Railroad Company.

A. There has been one constructed.

Q. Describe that viaduct briefly.

A. Its total length is about 1,760 or 1,770 feet. Its west approach is of cut stone masonry. The body of the viaduct is of iron, resting on iron columns supported on stone piers resting on a pile foundation. The east approach is of stone masonry, what is called rock face. There is a sidewalk on the south side of the viaduct its entire length.

Q. How does the length of the approach compare with the viaduct itself. What is the relative length of the approach?

372 A. I should say the approaches were probably eighteen to twenty per cent in length of the entire structure.

Q. Will you state whether that viaduct was constructed under the permission given by the ordinance of July 12, 1880?

A. Yes, sir.

Q. And pursuant to its terms and conditions?

A. Yes, sir.

Q. By whom has that viaduct hitherto been maintained?

A. It has been maintained by the Illinois Central Railroad Company.

Q. The ordinance to which you have referred provides that the cost of maintaining and repairing the same shall be borne by the Illinois Central Railroad Company and the right to the use of the said bridge or viaduct shall be forever free to the public and to all persons having occasion to pass and repass there. Will you state whether that condition of the ordinance has been nullified?

A. It has been fully complied with.

Q. This same ordinance also provides that Randolph street shall be produced eastwardly and declared to be a public street from the easterly line of slip C, produced southerly to Lake Michigan. Will you state whether that condition has been complied with?

A. It has been complied with.

Q. By whom was the ground made which is occupied for that purpose?

A. By the Illinois Central Railroad Company.

Q. Do you know, Mr. Jeffery, how long Central avenue, running from Randolph street to South Water street and immediately west of the depot of the Illinois Central railroad, has been used as a public street?

A. My recollection is that thirty years ago the southern portion of what is now Central avenue was not filled in, but the waters of the lake ran right up into it; that for a little north of Randolph street—I couldn't say how far—the avenue was used thence to Water street.

Q. Do you remember when the filling was completed and the street extended in its present form at Randolph street?

A. I do not.

Q. About when?

A. I couldn't answer that question.

Q. Has it been so for twenty years?

A. It has been so for, I think, more than twenty years.

Q. I will now call your attention again to the pier which you have spoken of at the foot of 13th street. When was that constructed?

A. In 1885 and 1886.

Q. Will you state under what circumstances it was constructed?

A. Do you mean the circumstances leading up to its construction?

Q. Yes.

373 A. I was required to appear before a board of engineers convened by the Secretary of War to consider the propriety of permitting the Illinois Central Railroad Company to enclose the east 100 feet of right of way granted to it by the ordinance of the City of Chicago of 1852, and in the discussions before the board and the evidence offered to the board by marine interests the fact was brought out that the southern end of the harbor was not protected by a breakwater or other suitable works from southerly and southeasterly storms, which storms disturbed shipping which might seek to lie in the outer harbor. The arguments and evidence led me, while sitting there in the presence of the board to make a rough pencil sketch of a pier in the location of the one that has been built and to suggest to the resident engineer here in Chicago for the United States Government that a double purpose might be accomplished, without expense to the Government, of providing a breakwater or protection from southerly and southeasterly storms and the same time form a wharf for use by the Illinois Central Railroad Company and by vessels having cargoes to receive or deliver from or to the company. I prepared a plan and a brief consultation with the resident engineer, which met with his approval. He

Evidence before
Master.

forwarded it to the authorities at Washington and they gave their consent to the construction of the wharf.

Q. I will now place in your hands what purports to be correspondence between yourself and Maj. Lydecker and between General Wright, chief of engineers, and yourself on this subject, and ask you to state if you can identify that as correspondence that actually passed at the time the letters are dated on that subject?

A. This paper, under date of May 26, 1882, marked copy, is a copy of a letter that I wrote to Major Lydecker on that date. On the back of the second sheet of the letter was an endorsement by Mr. Lydecker in reply to the communication just described, and under date of June 22, 1882, I received a letter from H. G. Wright, chief of engineers, in Washington.

Q. Is that the original letter that you received from him?

A. That is the original letter.

Q. What other paper is there there?

A. A paper dated June 15, 1882, and marked copy, which is a copy of the letter that I wrote to H. G. Wright, chief of engineers, acknowledging receipt of his letter of the 12th of June, 1882, above referred to.

By Mr. Ayer: I now offer the correspondence in evidence, which is as follows:

Illinois Central Railroad Company,
Office of the General Superintendent,
Chicago, May 26, 1882.

G. F. Lydecker, major of engineers, U. S. A., Chicago.

Dear Sir: The discussion before the board of engineers, which has been in session for two days in this city, brought into prominence the desirability of having either a crib protection or a substantial wharf, extending eastwardly 374 from the shore at or near Park row, to protect the outer harbor from south and southeast storms.

I submit herewith a plan of a wharf two hundred and fifty (250) feet wide, the eastern end of which is on the dock line established by the board of United States engineers some years ago. You will observe the proposed wharf is six hundred and fifteen feet (615) feet south of the south line of Park row, extended east.

Will you please submit the plan for the approval of the proper authorities, unless you think changes in it are desir-

able, in which event we will be pleased to conform to your judgment. Evidence before Master.

Yours truly, E. T. JEFFERY, Gen'l Sup't.

(1st indorsement.)

U. S. Engineer Office,
Chicago, May 29, 1882.

Respectfully forwarded to the chief of engineers, U. S. Army.

The dock which the Illinois Central R. R. requests authority to construct is located beyond the limits of the outer harbor and will intercept seas coming from a southerly direction, thereby preventing in a great measure the disturbance created in the harbor by seas.

If the legal right to build a wharf at this point rests with the railroad company I see no reason why the United States should oppose its construction. It is proposed to make this dock 250 feet wide, which in my opinion is greater than should be allowed for a dock within the limits of the outer harbor; but for this location I do not understand that the interests of the United States will be injuriously affected by building the structure as proposed.

G. J. LYDECKER,
Major of Engineers.

Office of the Chief of Engineers,
United States Army,
Washington, D. C., June 12, 1882.

E. T. Jeffery, gen'l sup't Illinois Central R. R. Co., Chicago, Ill.

Sir: Your letter of May 26, 1882, addressed to Major G. J. Lydecker, corps of engineers, submitting a plan of a wharf two hundred and fifty feet wide, the eastern end of which is on the dock line established by the board of engineers in 1871 for the outer harbor at Chicago, Ill., etc., was forwarded to this office May 29, 1882.

The Secretary of War approves the following suggestion of the chief of engineers and directs that you be informed accordingly:

"It is therefore suggested that the railroad company be

Evidence before
Master.

advised that the War Department interposes no objection to the construction of the proposed dock, provided that no change be made in its location and length, as shown on the plat presented in the within letter of E. T. Jeffery, the 375 general superintendent of said company, dated May 26th, 1882."

Very respectfully, your ob't servant,

H. G. WRIGHT,

Chief of Engineers, Brig. and Bvt. Maj. Gen'l.

1556, R. & H., '82.

Illinois Central Railroad Company,

Office of the General Superintendent,

Chicago, June 15, 1882.

H. G. Wright, chief of engineers, brig. and brev. major gen'l
U. S. A., Washington, D. C.

Sir: I beg to acknowledge receipt of your letter of 12th inst. notifying me of the approval by the honorable the Secretary of War of your suggestion that the War Department interpose no objection to the construction by the Illinois Central Railroad Company, of the proposed dock, as shown on the plat forwarded to you with my letter of May 26, 1882.

We will construct the dock in conformity with the plat submitted, both as to location and length.

Yours respectfully,

E. T. JEFFERY, Gen'l Supt.

Q. Will you state whether any change was made in the location or length of the dock as proposed in your plan?

A. No, sir; there was no change made.

Q. Do you know what the cost of the construction of that was, approximately?

A. Approximately, \$130,000.

Q. For what purpose is it intended by the railroad company?

A. It is intended by the railroad company to be used for receiving and discharging vessel cargoes, receiving from and delivering to teams the freight that comes in in car-load lots, and that cannot be handled in the freight yard down-town on account of insufficiency of room and busy times; also for handling and storing, at times, the company's materials and all the other purposes for which a railroad property is used.

Q. Will you state whether or not that additional ground is really necessary to the convenient operation of the road? Evidence before Master.

A. It is.

Q. You say, Mr. Jeffery, that a breakwater was built in 1869, just west, as I understand you, of this pier, extending from the foot of 12th street down to this south line of lot 21; what was the object of building that breakwater?

A. To protect the works of the company at what is called Weldon station. They have their machine shop, blacksmith shop, engine house, coal shed, and tracks, etc., and the storms made inroads on the property, washed out the tracks at times—sometimes up to the back side of the engine-house and machine shop.

Q. What was the condition of the old breakwater at that time?

A. Rather rickety.

376 Q. The space inside of that breakwater has since, as I understand you, been filled with earth, or at least that portion of it which was not already dry ground since that breakwater was built?

A. Yes, sir.

Q. At whose expense was that work done?

A. In the last ten years at the expense of the railroad company, to my personal knowledge, and I presume at the expense of the company before that time.

Q. Do you know how much money was expended in filling that ground?

A. No; I don't remember the amount now, sir.

Q. Can you give it approximately? I mean all the filling that has been done since 1869 west of that breakwater.

A. No; I can't state it approximately; I don't remember the amounts.

Q. Do you know whether it is a large sum or not?

A. Yes, sir; it is a considerable sum of money—large sum of money.

Q. For what purpose is that ground used?

A. For railway tracks on which coal and other heavy freight is handled; for handling railroad companies' materials; for two engine-houses and machine and blacksmith shops and their appurtenances, and many other purposes incident to the operation of a railroad too numerous to enumerate.

Q. What is the necessity of its use to the railroad company?

Evidence before
Master.

A. Without it the business of the company could not be handled in Chicago.

Q. You stated, I think, that that pier which was built in 1870 south of 12th street to the south line of lot 21 or near it has been since extended to what would be the center line of 16th street if that street were extended easterly?

A. Yes, sir.

Q. What is the object or necessity of constructing that pier?

A. There were several objects; first was the fact that as the most violent storms come from the northeast the waves run along the diagonal part of the breakwater of the outer harbor and following the line of that breakwater strike into the company's premises at or near lot 21. The force of the waves and storm was felt more between the north line of lot 21 and 16th street than at any any other point along the lake shore except around the curve near Douglas monument. Experience showed that it was necessary to have the protection or breakwater removed some distance at the point under consideration from the line of the company's right of way and from its main tracks; and with that end in view this work was extended south, as heretofore described, to about the center of 16th street. Another object was that it was thought desirable to construct a slip or basin between the company's shops near lot 21 and 16th street, the slip to be substantially north and south so that vessels having company's materials or having freight to be handled could go down to the south end of the slip and pass into that slip and lay there safe
377 from storms. The plan has not been carried out, but it is still contemplated and the subject is under consideration.

Q. Will you state whether there is not a space left for the entrance of vessels at the south end of that proposed slip?

A. A space 100 feet wide has been left for that purpose.

Q. Will you state how that pier work was built; how it was constructed; what kind of a pier was it?

A. A breakwater was constructed of a wooden crib-work, made of frame work securely bolted and pivoted together, the timbers being generally 12x12 and of suitable lengths; and these cribs when constructed were floated to the desired location and there filled with stone and sunk to the bottom of the lake; then the superstructure was erected of timber upon such sunken part of the crib, and that again was filled with stone to a height, say, of about four or four and one-half

feet above the ordinary level of the lake. After being filled with stone the crib-work was planked over with heavy planking so as to prevent the stone from being washed out by the action of the waves.

Q. State whether anything has happened to that breakwater since it was constructed.

A. Yes, sir; after it was constructed and in two very violent storms that occurred the timbers were torn up in the Government work in the outer harbor and north of the Chicago river; some of the timbers piled on the Government breakwater were washed from the breakwater in large quantities and by the storm carried down to this work I have described and driven with such force against it as to break it in numerous places and thereby permit the waves to tear the work apart and ultimately lead to its destruction so far as it was above the level of the lake. The submerged part, of course, is still in position.

Q. I notice that you have been driving piles down there along that breakwater. For what purpose have those piles been driven?

A. For the double purpose, already described, first, of protecting the tracks and property against the blows of the waves—force of the storms—and next, preparatory to making the slip hertofore described.

Q. What is the condition of the old breakwater nearer the shore or upon the shore at the point north of 16th street?

A. It is, north of 16th street, useless, worn out, rotten, no stone in it.

Q. Utterly ruined, isn't it? Now, Mr. Jeffery, will you state what use is made by the company of piers 1, 2, and 3 north of Randolph street?

A. Pier number 1 is leased to two or three parties for commercial purposes, the parties handling lumber mainly. They receive the lumber in cargoes by vessel, and distribute it all through the various States and Territories that are tributary to Chicago by rail; the cars are switched upon the company's tracks to these lumber yards so that they may be loaded conveniently and at small cost. Pier number 2 is used for substantially similar purposes. Pier number 3 is used as a part of the Chicago freight yard of the Illinois 378 Central Railroad Company; upon it there is a frame building perhaps 550 feet long and seventy-five feet wide; that is used for heavy freight, such as sugar and molasses, salt, etc. The pier has been macadamized between

Evidence belt
Master.

Evidence before
Master.

the tracks, so that teams can drive out there conveniently from the viaduct and take freight from the cars placed on tracks convenient for delivery to teams. All three of the piers are accessible to the lake craft and are a great convenience in handling freight from rail to vessel or from vessel to rail.

Q. Do you know how wharf C, represented upon the map as having been built in 1867, is occupied?

A. It is used for substantially the same purposes as I have outlined for wharves 1 and 2, except that the south end of wharf C carries the tracks leading to wharves 1, 2, and 3, which tracks afford access to the last three named wharves.

Q. Will you state, Mr. Jeffery, whether the Illinois Central Railroad Company has or not occasion for the use of all the ground it has occupied or reclaimed from the lake lying north of Randolph street?

A. Yes, sir; and more, too.

Q. Will you state what the necessities of the company now are in regard to freight business?

A. We have one freight-house built twenty-eight or thirty years ago, say thirty years ago, when the road was 706 miles long, which freight-house to-day is compelled to handle the merchandise shipments in and out from a system that has grown to be 2,550 miles, and it is almost impossible to get through the business every day. We need at least one more freight-house equal in size to the present one, and probably two more. The Michigan Central Company, which occupies a part of the Illinois Central Railroad Company's land, is very much cramped for room, and has made frequent application, and most urgent application, for increased facilities, which we are compelled to deny. The Baltimore and Ohio Railroad Company has also been badly cramped, and is to-day. Have looked for some relief in our freight traffic should the Baltimore and Ohio vacate the premises they occupy, but I am satisfied from years of experience that the use of the ground and facilities they now use would not afford us the relief desired and necessary, considering the growth of the system of railway operated by the company. Again, in wharf room, we are at times very badly pressed for places to discharge the cargoes of lumber and fence posts and telegraph poles and one class of material and another that comes to us, and could use with convenience to the public and profit to the company twice or three times the wharf room we have north of Randolph street.

Q. How is it in regard to passenger facilities?

A. In passenger facilities we are worse off than in freight. The passenger-house, or rather the ruins of the passenger-house, represent an area of ground that was designed for the traffic of the Illinois Central and Michigan Central Railroad Companies thirty years ago. The Illinois Central system has grown three and one-half times what it was when the house was built; the Michigan Central system is four times what it was. The mileage of the system is four times what it was when the house was built thirty years ago. The local or suburban business of the Illinois Central Railroad Company to-day is the largest of that done by any one line of railroad in Chicago and requires forty-five trains each way daily, making ninety suburban trains in and out of the ruins of the passenger depot. The legitimate or through passenger business cannot be developed by putting on necessary trains because of our inability to get more trains in and out of the depot, and the accommodations for the suburban passenger business have reached their limit for the same reason that it is impossible to get more trains in and out of the ground occupied by the passenger depot ruins. There is no other available grounds for passenger purposes owned by the company, unless it may be said that a depot can be constructed south of Park row on the ground owned there by the company and used mainly for its locomotive shops. The three blocks between Randolph and Monroe streets constitute the most desirable site, and their accession seems to me a necessity to relieve the present overcrowded grounds and tracks.

Q. By whom is the ground owned that is now occupied as a passenger station?

A. Jointly by the Illinois Central Railroad Company and the Michigan Central Railroad Company.

Q. Can you state why that depot has not been rebuilt by those two companies?

A. First, because the area covered by it is insufficient; second, because the area can't be increased at that point without disturbing the Michigan Central track facilities or closing Central avenue; and, third, because the company has been unable to perfect the title to the three blocks between Randolph street and Monroe street, lying between its right of way and Michigan avenue.

Q. Will you state what was the necessity for constructing that viaduct at the foot of Randolph street?

Evidence before
Master.

Evidence before
Master.

A. The overcrowded condition of the freight-house and freight yards and tracks compelled the construction of the wharves; to make the wharves accessible to teams required the construction of the viaduct, therefore the viaduct was built.

Q. Mr. Jeffery, have you ever made any inquiries or estimate as to the aggregate amount of money expended by the Illinois Central Railroad Company in the construction of its works along the lake from between the Chicago river and 16th street?

A. I made an approximate estimate in 1877, I think, at the request of Mr. Akerman, who was then first vice-president, I believe, of the company.

Q. Do you know what work has been done since then?

A. Yes, sir; I know about the character of the work done since then.

Q. Will you state, in round numbers, approximately, how much money has been expended by the Illinois Central Railroad Company in the construction of its works along the lake shore between the points mentioned?

380 A. Upwards of three millions of dollars.

Q. Will you state whether in 1882 you had any correspondence with Major Lydecker, the officer of engineers here in Chicago in charge of the harbor, in reference to the occupation of an additional 100 feet alongside and east of our present right of way, between Park row and Randolph street?

A. I did have a correspondence.

Q. Do you remember what time in 1882?

A. No, I do not remember the date.

Q. How was the correspondence commenced, or what led to it?

A. We thought it was desirable to take possession of the 100 feet under the ordinance of 1852, and with that end in view I commenced driving piles.

Q. Where?

A. Northerly from Park row, on the east line of what would be 300 feet right of way. By the time thirty-six piles were driven I received a note from Maj. Lydecker requesting me to stop work and asking by what authority we were continuing it, to which I responded.

Q. Have you ever seen these executive documents published by order of the House of Representatives during the

first session of the Forty-seventh Congress, called executive document number 95?

A. I have.

Q. Will you look at the letter purporting to have been addressed to you by Maj. Lydecker on the 28th of June, 1881, which is printed in that document, and state if that is the letter to which you have referred?

A. Yes, sir; that is the letter to which I have referred.

Q. Do you know whether that matter was subsequently referred to the War Department?

A. It was.

A. For their decision and instruction?

A. It was.

Q. You can state generally the result; whether you were permitted to go on and occupy that additional strip or not?

A. We were not permitted to go on and occupy the additional strip.

Q. Will you state whether there was a board of engineers convened here in Chicago for the purpose of considering that application?

A. A board of engineers was ordered to convene in Chicago to consider the application made by the Illinois Central Railroad Company.

Q. Who were the board?

A. Gen. Weitzel, Mr. Comstock, and Mr. Park, I think, were the three men.

Q. They had a meeting here and made a report, did they not?

A. Yes, sir; the board was ordered to convene here and hear arguments and obtain evidence, and the substance of their report was that—

381 Q. No matter about the substance of the report. Did they meet here and hear evidence.

A. They did.

Q. Did you attend the sessions?

A. I did; and other parties also attended.

Q. Will you state whether there was an opportunity for anybody to be present that wished to and felt any interest in the question?

A. There was ample opportunity, and public notice was given of the sessions of the board by printing notices in the papers.

Q. Will you state whether you afterwards went on with that work?

A. I did not.

Evidence before
Master.

Q. Why did you abandon it?

A. Because of the notice from the War Department of the United States Government and upon the instructions from the president of the company.

Cross-examination by Mr. Thompson:

Q. Do you know precisely how much land west of this breakwater of 1869, which is marked in red on the map, was made and in the occupation of the Illinois Central Railroad Company in 1869?

A. No, sir.

Q. Have you any maps or facts in your engineer's office that will show that, or have you any officer or agent of the company that can indicate that on the map?

A. I could not say as to that without looking over the maps themselves, examining those on file in the company's office.

Q. I asked yesterday, and I would like to know just how much land there was in 1869?

A. I would suggest, General, that you send some one down there to the engineer's office or draughting office to look over the maps there for the purpose of obtaining the information. All the charts which we have are open to your inspection.

Q. How many tracks were there in 1869 on this pile bridge you have referred to?

A. It was a double-track pile bridge.

Q. There were two tracks, then?

A. Yes, sir.

Q. How many tracks are there now over the place which was then the pile bridge?

A. In some places there are fifteen or sixteen and in no place less than seven.

Q. The entire width of 200 feet, which has been filled in, is occupied by tracks, is it not?

A. No; not fully occupied; the easterly portion of it has a roadway for wagons.

Q. The entire distance from Park row to Randolph street?

A. No; from about Harrison street to Park row.

Q. North of Harrison street to Randolph street the right

of way, 200 feet wide, is substantially fully occupied with tracks, is it not?

Evidence before
Master.

A. Yes, sir.

382 Q. How many railroad companies are there to which you furnish track facilities of a permanent character?

A. We rent facilities to two other companies—the Michigan Central Railroad Company and the Baltimore and Ohio Railroad Company. We furnish track facilities to all railroads in Chicago in the transfer of freight.

Q. That is incidentally, of course. I referred only to the permanent facilities.

A. Yes, sir.

Q. Do you lease any ground north of Randolph street to the Michigan Central Railroad Company?

A. Yes, sir; they have leased in perpetuity ground north of Randolph street.

Q. Do you lease any north of Randolph street to the Baltimore and Ohio road?

A. Yes, sir; the Baltimore and Ohio Company use ground north of Randolph street under an alleged lease from the Illinois Central Railroad Company.

Q. How large a space do they occupy, the last-named road, the Baltimore and Ohio?

A. I don't remember the area north of Randolph street, but the aggregate, north and south of Randolph street, I think, is about 170,000 square feet.

Q. How much is occupied by the Michigan Central, ground that is owned or claimed to be owned by the Illinois Central?

A. I don't remember the area, but it is much larger than that occupied by the Baltimore and Ohio Company.

Q. What is the mileage of the Baltimore and Ohio system?

A. I cannot state from memory.

Q. Don't you think it is nearly as large as the mileage of the Illinois Central?

A. It may be so, but my recollection is that it is less than the mileage of the Illinois Central system.

Q. How does the mileage of the Michigan Central system compare with that of the Illinois Central?

A. I think they have about 1,300 to 1,400 miles as against the Illinois Central Railroad Company's 2,550.

Q. What is the rental paid by the Michigan Central Rail-

Evidence before
Master.

road Company for its ground—the ground that you furnish it—and for the track facilities which you furnish it?

A. It is not a fixed sum; it is not a fixed annual rental, but trackage is based on so much per passenger and so much per ton of freight. The ground rental is a fixed sum, but I haven't charged my mind with the details of the arrangement, and could hardly recite them from memory.

Q. Do you remember the rental of the Baltimore and Ohio?

A. It is based on the same principle as that that obtains in the Michigan Central rental.

Q. A fixed sum for the ground?

A. A fixed rental for the ground and so much per passenger and so much per ton of freight for trackage, the Illinois Central Railroad Company maintaining the tracks 383 at its own expense and policing them.

Q. Has the Illinois Central Railroad Company recently—within two years—endeavored to secure other roads to make permanent track facilities with them and provide them with room and trackage?

A. Yes, sir; it has been the policy of the railroad company to obtain other tenants and use other facilities in common with it.

Q. In general terms, they are seeking employment for their facilities, are they not, for other roads?

A. No; I could scarcely say they are seeking it, but they are open to negotiations.

Q. How is pier at 13th street, marked built in 1885, occupied now?

A. It is occupied by tracks—by freight cars switched to and from the tracks and at times standing on the tracks.

Q. It is not largely covered with freight cars now?

A. Yes, sir; and materials of other kinds—freight cars and materials.

Q. You said that dock number 3 was occupied as a freight receiving and delivering place. Does that freight come by water?

A. No; not all. There is a great deal of it comes by rail.

Q. Both of your road and that of other roads which come over your road?

A. Principally over our road.

Q. Then it is used as an ordinary freight-house for your road for the delivery of freight coming on the road?

A. An ordinary delivery yard. Cars are loaded and unloaded there.

Q. The people of Chicago go there to secure their freight with teams, and go there to deliver it to be transported?

A. Yes, sir; such freight as will not be injured by exposure and can be loaded and unloaded in the open air and all kinds of weather.

Q. What is the size and capacity of elevators A and B?

A. Elevator A has a capacity of about one million bushels storage, and elevator B about one and one-half million bushels storage, and alongside of elevator B, upon the east, is a crib with a capacity for storing about 300,000 bushels of grain.

Q. Of what size are those elevators; I mean how many feet do they cover?

A. I can't tell from memory, but I can try and measure it for you.

Q. Give a general estimate of it.

A. Elevator B, according to map 10, measures 400 feet in length, including the engine-room and boiler-room, and elevator A measures 200 feet in length.

Q. Who built those elevators?

A. The width of each is about 100 feet; perhaps a little more. I cannot answer that question of my own knowledge.

Q. Who occupied them when you came here in 1856 or 1857?

384 A. I can't answer that definitely. My recollection is Solomon Sturges and Sons or Sturges and Buckingham.

Q. Did they own them, so far as you know?

A. I would know nothing about it then; I was a youngster.

Q. Who owned them when you became general superintendent?

A. J. & E. Buckingham, subject to a contract with the Illinois Central Railroad Company requiring them to purchase the building at the expiration of the lease of the ground, which lease expired last September.

Q. And were they purchased by the railroad company from the Buckinghams at that time?

A. They were.

Q. Are they now leased?

A. An elevator company was organized by the railroad

Evidence before
Master.

company, and I think a lease has been made. The matter has been before the board of directors, and I am not sure as to whether it has been definitely acted upon or not.

Q. Does the railroad company own any stock of the elevator company?

A. No, sir; not if the lease has been made.

Q. Is the stock owned principally by the Buckinghams?

A. As to that I cannot say.

Q. What is the rental in this lease that you mention?

A. In this proposed lease?

Q. Yes.

A. About \$50,000 a year.

Q. For the two?

A. Yes, sir.

Q. Does the elevator company pay ground rent?

A. No. In lieu of that they pay insurance and any taxes that may be levied, as I remember the proposed lease. Of course I may be mistaken in some of these details.

Q. You said that dock C was occupied mainly with lumber yards, except a portion occupied by the tracks?

A. I said that dock 1 is occupied in that way and dock C substantially the same as dock 1, except at the southerly end, where the tracks upon it give access to docks 1, 2, and 3.

Q. The people who occupy those docks and wharves and lumber yards are in no way connected with the railroad company other than as lessees, are they?

A. None other than as lessees of property and shippers of freight. They are lessees of the property and patrons of the road.

Q. They receive their lumber by boat mostly, do they not?

A. Yes, sir.

Q. And ship it by rail?

A. Yes, sir.

Q. They don't ship it all by your railroad, I suppose, do they?

A. No; we can't compel them to confine the shipments to our road. We have thrown open the use of our tracks to all other railroad companies on payment of reasonable switching charges.

385 Q. Can they ship lumber wherever they choose without regard to the road over which it goes?

A. Wherever it is desirable to the public to have it.

Q. By your company?

A. By ours or any other company.

Q. They sent the freight where and over what they choose, the lumbermen do, do they not?

A. Yes; giving our road the preference, to points that can be reached by our road, on account of their being located on our property.

Q. If they want to send freight to a point only reached by the Northwestern railroad they could ship it by the Northwestern railroad cars?

A. Yes, sir; they would make a requisition on the Northwestern Railroad Company for a car, which would be brought over to our yard; we would switch that upon the track; the car would be loaded; then we would switch it back to the Northwestern, in their yard at 16th street on the west side of river, and they would put it on a train and forward it.

Q. Then the only connection or relation, except that of lessor and lessee, which your road occupies with the lumbermen to whom you lease is that which necessarily results from their being in the vicinity of your tracks, for use of which you have taken switching charges; isn't that all?

A. No; there is a deeper relationship than that, and it virtually affects the Illinois Central Railroad Company's interests. If the lumber dealers were not on those wharves, but were located where nearly all other lumber dealers are, on the South branch, as it is called, it would take our cars five days to go from our freight yard in Chicago to the lumber yards, whereas in one day we can switch them on the wharves in these lumber yards and have them loaded and dispatch them to wherever they have to go. So much delay is saved in handling the rolling stock.

Q. It is a matter of convenience to your road to have them—

A. And of revenue, of course, which is virtually profit.

Q. What rental do the lumbermen pay?

A. It is \$6 a lineal foot. I think it averages about four per cent. or a little less than that on the cost of the wharves, and is not quite enough to maintain them, and of that, of course, we pay seven per cent. to the State, under the charter of the company.

Q. You pay seven per cent. of all these rentals you receive to the State, do you not?

A. Yes, sir.

Evidence before
Master.

Q. From the railroads and from the lumbermen and from the elevators?

A. Yes, sir.

Q. Have done ever since the charter was granted, haven't you?

A. Well, ever since the road commenced business.

Q. Have you the letter which you wrote in reply to this, which is produced in document 95?

386 A. Yes, sir; it is in there.

Q. That is the letter which you wrote in reply to the letter to which you referred in your direct examination from Major Lydecker, is it not (showing witness letter)?

A. That is the letter I wrote in reply.

Q. In reply to the letter to which your attention was called by Mr. Ayer this morning?

A. Yes, sir.

Q. In reply to the letter from Major Lydecker, you state, do you not, to him that the company proposed to fill its right of way to the width of 300 feet, pursuant to the authority given to it by the city of Chicago in the ordinance of 1852?

A. I stated, in reply to Major Lydecker's letter, that the work being constructed was under authority of an ordinance of the city of Chicago adopted on the 14th of June, 1852.

Q. And it was under that ordinance that you proposed to do the work, was it not?

A. It was by authority of that ordinance.

Q. That was in 1881. Your letter was written in 1881, was it not?

A. Yes, sir; the letter was written in 1881.

Q. The right of way by the charter of the company is 200 feet wide, but by ordinance of the city of Chicago between Randolph street and Park row it is made 300 feet. The company did not avail itself of the full width, as permitted by the ordinance, when the road was built in Chicago?

A. And at this time it was deemed advisable to occupy the full width authorized by that ordinance.

Q. Why did you deem it desirable to occupy the full width?

A. We were crowded for track room and desired to have a roadway on the east side of the right of way of the company, which we could not have if it was restricted to 200 feet.

Q. You deemed this filling the 200 feet and the attempted filling of 300 feet by you the most economical way of furnishing necessary track facilities for the road, did you not?

A. Well, I should say the most available and economical.

Q. It was done for the purpose of providing facilities for the operation of the road and its tenants?

A. Yes, sir.

Redirect examination:

Q. You have stated that the Baltimore and Ohio Railroad Company occupied freight ground at the terminus of the Illinois Central Railroad Company, north of Randolph street. Will you state whether there is not a controversy between the lessor and lessee in regard to their right to continue in possession?

A. There is a controversy.

Q. Will you state whether or not there has been a suit brought by the Illinois Central Railroad Company against them to recover possession?

387 A. A suit has been brought and the case is now pending in the courts.

Q. Will you state how long the Michigan Central Railroad Company has occupied freight grounds north of Randolph street?

A. Since the railroad was first opened.

Q. Did they occupy the same extent of ground prior to 1860 that they do now?

A. I cannot answer that question definitely.

Q. Substantially?

A. Substantially.

Q. The same?

A. The same, substantially.

Q. Will you state what is the necessity of the elevators A and B to the Illinois Central Railroad Company?

A. Unfortunately the lakes freeze in winter; then all lake navigation is stopped, and as lake rates are cheaper than rail rates to the Atlantic seaboard grain accumulates in Chicago during the winter and we carry the grain until the opening of navigation. The Illinois Central Railroad Company must provide upon its terminus in Chicago suitable room for storage of grain from the grain fields along its line so that it can be held until the boats will carry it away at the low lake rates. We have been at times so pressed for room in

Evidence before
Master.

the last ninety days that we have had to almost stop receiving grain in Chicago. Ten days ago we had to put 107,000 bushels of corn on the floor of one of the elevators because there was no room in the bins. The indications are that inside of the next ten days, unless we can get lake craft to carry some more grain away, we shall be full to overflowing, there only being about 500,000 bushels vacant room in the two houses, and be compelled to stop receiving grain, even while navigation is open; and it is impossible to operate a railroad reaching the grain fields and having a terminus in Chicago or any other of these lake ports without grain elevators upon the premises of the railroad company or of easy access by railroad.

Q. Has the Illinois Central Railroad Company any other grain elevators at Chicago?

A. No, sir.

Q. Are there any other elevators to which it has convenient access?

A. No, sir.

Q. Or any access over its own tracks?

A. No, sir.

Q. Will you state whether the Illinois Central Railroad Company could do any grain business from Chicago if it had not provided grain warehouses or elevators for the storage of grain?

A. It would do a grain business to a limited extent; for instance, all that could be delivered on tracks, what is called track delivery, for local consumption in Chicago; and, again, that which could be transferred from car to car and go over other lines of road leading from Chicago.

388 Q. How does the volume of that business compare with the whole volume of grain business?

A. It would vary, perhaps, from forty to fifty per cent. of the whole volume, according to the commercial conditions in different years.

Recross-examination by Mr. Thompson:

Q. Is there any objection to the Illinois Central Railroad Company's taking what they bring to Chicago into other houses, except the necessity of paying trackage to other railroads?

A. There is not only the expense of the switching charges, but there is the great delay to the cars, and at times,

when grain is moving promptly or vigorously, cars become vital. If you can't get your cars around quickly—have prompt movement—your country grain dealers are swamped and your revenues are suffering.

Q. It is the policy of the railroad companies, then, is it not, to establish, or have established for them, upon their own grounds or near their tracks, elevators for the storage of grain that they bring?

A. Yes, sir.

Q. And they dislike—are very reluctant—to take grain to other elevators, are they not?

A. Certainly; for the reasons I have mentioned.

Q. If the Illinois Central Railroad Company had not built the elevators upon its own track they presumably would have been built somewhere else, convenient to the tracks, by private individuals, would they not?

A. I would prefer not to speculate on that.

Q. You don't know of any reason why the enterprise of the city of Chicago would not be equal to that occasion, do you?

A. I think Chicago can accomplish all that can be accomplished in this world or the next. I have great faith in Chicago.

Q. The Illinois Central Railroad Company has not encouraged the building of grain elevators by private individuals in the vicinity of its tracks?

A. Never encouraged or discouraged; the question has not been raised.

Q. The Illinois Central Railroad Company, I suppose, does not encourage the consignment of grain to any other elevators except those of the Illinois Central Railroad Company?

A. It neither encourages nor discourages consignments to any special elevators, but it prefers to have the grain consigned to the elevators upon its tracks for the reasons I have already recited.

Q. You stated in your direct examination that this ground was all necessary for the operation of the road. Of course you didn't mean this identical ground which has been made by the waters of the lake by the railroad company was necessary for the operation of the road. You meant, I suppose, that amount of ground was necessary?

A. What I said was that, looking at the system generally of the company and its relation to Chicago, and the neces-

Evidence before
Master.

sities in Chicago for terminal facilities, and the availability and accessibility of ground adjacent to the tracks as heretofore existing, the land you refer to is the most desirable, and was therefore selected.

Q. You manage now to do the business that is offered with reasonable dispatch and facility, do you not?

A. No; we do not. Our passenger business, as I have already explained on the direct examination, is now and has been suffering for some time for want of proper facilities, and so also has our freight business. We could accommodate more of both if we had ample facilities, and to-day, as you know, with railroads facilities of the best are needed. Competition is a very strong and vigorous agent in compelling railroads to furnish ample facilities.

Q. Don't you think you would have facilities enough in the way of ground room if you did not lease out any of your property to individuals or to railroads?

A. Well, in some respects we would. For instance, if the ground used by the Michigan Central Railroad Company was to-day taken by the Illinois Central Railroad Company, if it could be taken, it would afford room for freight-houses and for the merchandise business and all the freight traffic that must be handled in freight-houses, but it would be of no use in affording wharfage room, affording access to the boats on the lake that receive and discharge cargoes.

Q. What proportion of the ground that is occupied by these general railroad purposes north of Randolph street is under lease?

A. I could not state.

Q. Half of it?

A. No.

Q. Quarter?

A. No.

Q. Not a quarter?

A. No. Do you mean to include in that the wharves that are leased?

Q. Yes, where you have your tracks, all of one and two.

A. I should say perhaps half of it is leased to those who engage in business.

Redirect examination by Mr. Ayer:

Q. The ground occupied by the Michigan Central Railroad Company for track purposes, or at least occupied by

their freight-house, is their own ground, is it not—they own it? Evidence before Master.

A. Yes, sir; north of Water street, you mean?

Q. Yes; the ground where their freight-house is.

A. Yes, sir; north of Water street.

Q. And they own half of the passenger station grounds?

A. Yes, sir.

Q. And when you speak of the lease what do you refer to?

A. I meant the ground that is leased to them for their freight-yard tracks and for handling what is called track delivery.

Q. Those tracks are right side of the passenger station-house?

A. Yes, sir.

390 By Mr. Fuller:

Q. Did you say that the company wanted the three blocks from Randolph street to Monroe street?

A. Well, it has been wanting it, I think, since 1869.

Q. Did they want them before?

A. By inference, I should answer yes. I could not answer you that question definitely, because I was not in a position to know anything about it at that time.

Q. What for?

A. Passenger-depot purposes.

Q. Would the acquisition of those three blocks relieve the difficulties that the road labors under?

A. So far as this passenger traffic is concerned, it would; not as to its freight traffic.

Q. Would it have any tendency to relieve the freight?

A. Not unless the existing passenger-house was turned into a freight-house; that would afford a little relief in the handling of such freight as must go to and from freight-houses.

434 GUSTAV H. CARLSON, being first duly sworn, testified on behalf of complainant as follows:

By Mr. Bradley: Please state your full name.

A. Gustave H. Carlson.

Q. Residence?

A. Normal park.

Q. How long have you lived in this country?

A. Since 1871.

Evidence before
Master.

Q. What is your business?

A. Surveyor.

Q. Are you the Carlson of Greeley, Carlson & Company?

A. I am.

Q. Are you familiar with the land occupied by the Illinois Central Railroad Company between the main river and 16th street?

A. I am.

Q. Have you been carrying on your business of surveyor in Cook county since you have been here?

A. Yes, sir.

Q. I will ask if you have lately surveyed the tract of land spoken of occupied by the Illinois Central Railroad Company?

A. I have.

Q. Did you make a plan of it?

A. Yes, sir.

Q. Have you this plan with you?

A. This is the document (producing plan).

Q. Will you look at the exterior lines of the land occupied by the Illinois Central Railroad Company as laid down on this plan, and state if they are correctly shown on this map?

A. The outline, or most easterly boundary, you may say, of the land so occupied is enclosed in blue color; that is to indicate water; and then out here, that shows some piles have been driven down there, and on 16th street there is an old pier running out, and there are some piles there, and one clump of piles scattered about in there.

Q. That is in the neighborhood of 16th street?

A. Yes, sir.

Q. Is that pier that would be about 16th street produced above water?

A. When I was down there yesterday I could see it. The waves would come up and at times I could see it plainly, the whole length of it.

Q. Did you make a survey yourself, in person?

A. Yes, sir.

Q. You stated that these exterior lines are correctly surveyed?

A. Yes, sir.

Q. As they are now?

A. Yes, sir.

Q. When did you make the survey?

435 A. I made it this month.

Q. Did you also survey the works of the Illinois Central Railroad Company and divers other—

A. We located all occupations along east of Michigan avenue between the river and 16th street.

Q. North of Randolph?

A. Between the river and 16th street.

Q. Have you given the principal firms and individuals who occupy any of the land that is not in the possession of the Illinois Central Railroad Company?

A. Yes, sir; stated here, I think.

Q. What is the character of business principally?

A. There are some lumber yards, and some dealing in telegraph poles, and others in salt; there are some sheds here—that is, the Michigan Salt Association—just being built during the progress of the survey. Yesterday I found they were nearly completed, so I took the location of them. Lord, Bushnell & Co.,—

Q. What is their business?

A. Lumber yard.

Q. Have you indicated in words, in the proper places, the firms or individuals who are occupying there?

A. Yes, sir; I spread it over the territory they are supposed to occupy.

Q. I suppose you put down the principal buildings?

A. I have put down only the principal buildings, and showing about the territory they occupy, and then the railroad tracks are put down.

Q. I will ask you about these shore lines which you see here in dotted lines. Here is the shore line of 1869. I will ask you how you obtained that shore line.

A. I got that from the map in the possession of the engineer's office of the United States, in the Honore building.

Q. What is the name of the engineer?

A. I have forgotten the major's name.

Q. Is it Benyard?

A. No; some other name.

Q. I will ask you whether you made a copy of that plan you found in the engineer's office of 1869.

A. Yes, sir; this is a copy of part of it here, showing principally the location of the shore line and the railroad.

Q. Is that a correct copy?

A. Yes, sir.

Evidence before
Master.

By Mr. Ayer: I object, on behalf of the Illinois Central Railroad Company, to all evidence of this witness relating to the shore line of 1869, for the reason that it does not appear that that line is drawn from any actual survey.

Q. What part of the map have you copied—the map of 1869?

A. That part showing the shore as that map showed it, which gave a scale of 400 feet to the inch; shows the shore and location of the breakwater on the trestle-work upon which the railroad ran.

436 Q. Is this the same scale as the one you found at the engineer's office?

A. Yes, sir; it is a true tracing.

Q. True tracing?

A. Tracing; yes, sir.

Q. I understand, then, that the plan which I first called attention to is on a different scale, is it not?

A. Yes, sir; 200 feet to the inch.

Q. I will ask you, then, in placing the shore line of 1869 on the map which you made yourself, if you did so, what manner you did so, whether by platting—

A. I platted by scale measurement, and suppose there was a scale given to the map in their possession. I produced their map on mine.

Q. Simply enlarged it?

A. Enlarged it to different size.

Q. Corresponding to your scale?

A. Yes, sir.

By Mr. Bradley: I now offer in evidence on behalf of complainant the map first described by the witness and which he drew, as he states, from a survey made by him, to be marked "Complainant's Exhibit Map No. 13."

I also offer in evidence the tracing, alluded to in the above evidence, of Chicago harbor and bar from survey made between the 20th of July and 20th of August, 1869, under the direction of Brevet Major J. B. Wheeler, major corps of engineers, U. S. A., and which will be marked "Complainant's Exhibit Map No. 14."

Cross-examination by Mr. Ayer:

Q. Do you know personally anything as to the accuracy of the shore line purporting to have been made from survey in 1869 under the direction of Colonel Wheeler?

A. No; I do not.

Q. Do you know anything personally in regard to the accuracy of any of the so-called shore lines drawn upon this map, except those indicating the present shore line?

A. No; only the present shore line, except there are the records of Fort Dearborn—written records.

Q. I ask you whether you have personal knowledge.

A. Personal; no.

By Mr. Ayer: I now object to the introduction of this Carlson map number 13 because the shore lines delineated upon it are not authenticated by any legal evidence.

Redirect examination by Mr. Bradley:

Q. With regard to the shore line of 1821, I will ask you how you obtained that and put it on this—

A. From the same map. It is on the same map as they showed it in the Government survey.

Q. You took that from the Wheeler map of 1869?

437 A. Yes, sir.

Q. And did you produce that on this map in the same manner by the scale?

A. Yes, sir.

Q. Now, with regard to the line on the map marked edge of water in lake as shown on recorded map of section 15, 39, 14, recorded July 18, 1836, how did you obtain that shore line?

A. That I obtained from our atlas which is based upon—I think it is a re-record. I think section 15 is re-recorded, and that is based upon the re-recorded map.

Q. Did you put that shore line on your map in the same way—plating it in the scale of your map?

A. Yes, sir; our map is the same scale—platted on the same scale.

Q. How about this line called the east line of sand bar by Talcott's survey of 1836? How did you obtain that?

A. This is from a copy in our possession, which we used in the case of *Bates v. The Illinois Central Railroad Com-*

Evidence before
Master.

pany, made by Mr. Greeley and identified by him in our office as correct. He being now in Europe, he could not identify it himself now; but we have many times used it and have talked over it, and that survey was made by him at that time and used in that suit.

(The map just produced by the witness and known as Greeley's map number 1—copy of map showing the sand bar and its relations, scale 100 feet to the inch, September 22, 1858; copied December 8, 1859; Samuel S. Greeley—I ask the master to identify by marking Greeley's map No. 1, E. B. Sherman, master.)

Q. Have you put down the main lines of the track of the Illinois Central Railroad Company?

A. Their tracks are indicated in blue.

Q. The main lines—six of them—are there?

A. Six of them; yes, sir.

Q. Well, with regard to the balance, lines and switch lines, are they there or only the principal ones?

A. The principal ones, and then the outlines, and in between I have written railroad tracks to show the ground was covered. I have written in the spaces where it was covered, railroad tracks; the same down there at 16th street. I wish to say for explanation that all in between the east track of the Illinois Central Railroad Company and the main tracks of the road is all covered with tracks.

Cross-examination by Mr. Ayer:

Q. What is your authority for the shore line of 1869, which you have traced upon the map which you have made?

A. The authority is a map in the possession of the United States engineer corps, which is supposed to be made and based upon actual survey.

Q. Is that the Wheeler map?

A. Yes, sir.

Q. Have you produced a copy of that map here?

438 A. That is a copy.

Q. This is a copy?

A. Yes, sir.

Q. Is there anything in this map to indicate that there is any shore line of 1869?

A. Yes, sir; this is the shore line.

Q. Where is the marked shore line of 1869?

A. There was a slight color. I didn't color anything here. Slight blue color shows all along that line, the solid black line west of the track.

Q. There is nothing to show what that line indicates, is there, on the map?

A. Yes, sir.

Q. What is it?

A. There is a blue color.

Q. Is there anything but the blue color—that is, a blue shading along the line?

A. Blue shading, that is always shown on any map, representing the lake.

Q. Is there anything else on the map to show that is intended to represent the shore line of 1869?

(Objected to by Mr. Bradley as not the best evidence; the map itself is the best evidence.)

A. There is no writing except the color, which indicates—when you represent on a piece of paper the lake they always color the shore the same as I have on my map here; I color in the same way; little fainter on their map.

Q. Was that line which you call the shore line of 1869 extended on the original Wheeler map any farther south than 12th street?

A. No; it was not.

Q. Do you understand that you have placed upon this map and that portion of the works lying north of Randolph street, and in that parcel which is marked on the map in progress of being filled with earth—do you understand that to be a prolongation of the shore line of 1869?

A. I understand that was the edge of water at that point in 1869.

Q. Is this space upon your map, which we will call the Carlson map, which is marked "railroad tracks," lying north of Randolph street, pretty well filled with tracks?

A. Yes, sir.

Q. What are these elevators A and B?

A. Buildings placed there, used for various purposes; I don't know what particular purposes—who they belong to, in detail.

Q. Don't you know what they are used for?

A. Elevators for grain, I suppose.

Q. Grain elevators, grain warehouses?

A. I suppose so.

Q. I now call your attention to that portion of the map

Evidence before
Master.

showing the piers which you say were driven below the round-house and between that and 16th street; do you 439 or not know that there was a breakwater constructed there five or six years ago, and that the upper portion of it has been carried away by storms, leaving the lower portion loaded with stone still sunk along that line?

A. I only locate what I find; don't know anything about it.

Q. Don't know anything about it?

A. No.

Q. You didn't make any soundings there to ascertain?

A. No.

Q. You saw the line of the breakwater?

A. I located that.

Q. On the line of 16th street?

A. Yes, sir; about 16th street.

Q. That is east and west?

A. Yes, sir.

Q. Do you not know there was an opening left, about 100 feet, in that breakwater for vessels to enter?

A. Didn't notice that.

Q. Don't know whether it is so or not?

A. No. The breakwater—or the pier, rather—at times would be under water, and then when the waves would sink I would see it.

Q. You can't say that is a continuous breakwater, can you, from the shore out to the point?

A. Looked to me so.

Q. You are not sure of it, are you?

A. No; not absolutely sure.

Q. You have marked on this map, on the central portion, the words "tracks of Illinois Central railroad, Michigan Central railroad, and Baltimore and Ohio railroad." Do you mean to indicate by that that each of those companies had separate tracks?

A. No; I mean to indicate by that that each of those companies run cars over certain tracks.

Q. For aught you know, the tracks all belong to the Illinois Central Railroad Company?

A. Don't know in particular who they belong to. I suppose they do.

Redirect examination:

Q. This line further east, which is beyond what is marked east line of Illinois Central Railroad Company's right of way, 700 feet east of the west line of Michigan avenue, as by ordinance passed June 14, 1852—I understand that that is only an imaginary line which you have drawn 700 feet distant from the west line of the right of way, is it not?

A. Yes, sir; from the west line of Michigan avenue.

Q. Yes; it is not an actual line, only imaginary?

A. That is by the ordinance—designated by the ordinance.

By Mr. Holt: I will ask you how familiar you are with the making of maps by surveyors and engineers and their methods of indicating various facts upon those maps.

A. It has been my business for the last fifteen or sixteen years.

440 Q. You consider yourself thoroughly familiar with the practice of surveyors and engineers in that regard?

A. I think so, if there is any one in Chicago.

Q. What is the practice in reference to indicating lines of separation between land and water; how is it usually indicated on maps?

A. Sometimes by color; generally by plain line; sometimes by color on the side where the water is.

Q. By a shade of color on the water side of the line?

A. Water side of the line; yes, sir.

Q. From your experience with maps, if you should see a map containing a blue line of that sort without any letters to indicate what it was, what interpretation would you give it?

A. Would give the interpretation that on the same side of the line as the color is there would be water and on the other side land.

Q. And that method of interpretation you applied to this Wheeler survey?

A. Yes, sir.

Q. Did you have any doubt and have you now as to whether that line that you indicate as colored there stood for the shore line?

A. No, I would have no doubt; even if there was no color I would have no doubt from the indications of the map, the way maps generally are made.

Evidence before
Master.

Q. The words written at the top of the map, beginning with the words Chicago harbor and bar, are traced from the original map?

A. Yes, sir; that is from the entitlement of the other map.

Q. Would that title in those words give you any further indication as to the intention and the fact of representing the shore line on that map?

A. Yes, sir.

May 19, 1887.

L. P. MOREHOUSE recalled for further cross-examination by Mr. Fuller:

Q. How long a time would it probably take to construct the works delineated on the sketch marked Illinois Central Railroad Company's Exhibit Map Number 11?

A. I understand that the query refers to the works contemplated by the Illinois Central Railroad Company May, 1869, to be constructed east of the Illinois Central Railroad Company's breakwater as it then existed. Without regard to the question of economy it would be practicable to construct such works in a very few years, but I understand that it was the company's intention to prosecute the work only so rapidly as was consistent with a reasonably economical construction and the demands of the public for the facilities to be afforded by the proposed piers, slips, and breakwater. I think it would have required fifteen or twenty years to have constructed the whole work economically.

Q. What would be the probable cost of the construction of such works? If an estimate was made state it, and, if not, give your best judgment.

A. I think an estimate was made at the time, but I don't recollect the amount. I think it could not now be found.
441 It is impossible to estimate accurately the cost of work to be extended over a series of years, as the prices of labor and material may vary widely from time to time. Basing my opinion on the cost of that portion of the work in the modified plan already done, I should say that the proposed work would have cost about six and a half millions of dollars.

By agreement of counsel the taking of further testimony is adjourned to Friday, May 20, 1887, at 2 o'clock p. m.

May 20, 1887.

Evidence before
Master.

Present: Messrs. Williams & Thompson and A. S. Bradley, for complainant; Messrs. B. F. Ayer, Lyman Trumbull, and E. R. Woodle, for defendant Illinois Central Railroad Company, and Mr. M. W. Fuller, for The City of Chicago.

JONATHAN YOUNG SCAMMON, recalled for examination by Mr. Fuller, testified as follows:

Q. Do you know of any custom or usage prevailing on the shore of Lake Michigan, at or near Chicago, as to the riparian owners bounded by the lake? State what you know of such custom or usage and the rights of riparian owners on Lake Michigan to use, occupy, and improve by wharves, piers, quays, or filling in the land covered by water.

(Objected to by Mr. Ayer, on behalf of the Illinois Central Railroad Company.)

A. I have been here fifty-two years. When I came here in 1835 it was the habit of every one that had land bordering upon the water to build out docks or piers into the water as fast as they saw fit. Of course, they never interfered with the navigation of the steam; at least I don't know that they ever interfered with the navigation of the stream; a good many cases of that kind; and it has always been the habit of people living upon the lakes—all around the lakes, so far as my knowledge extends—to build piers out into the lake. There is no other way of accommodating the traffic, excepting where they have a natural harbor, and there were very few harbors on the lakes. There were piers built at Racine or Rock River and Southport or Pike river, Waukegan, at Grosse Point, I think, and all along, wherever there was any occasion, people built piers into the lakes. They were used for commercial purposes.

Q. Does not your knowledge since 1835 extend to other lakes than Lake Michigan?

A. I think so; yes, sir; that has been the universal practice. I think I have been acquainted with the customs which prevailed upon the lakes—indeed, the whole line of lakes. I think it has been uniform.

Q. How has it been in Chicago itself?

A. Well, that has been so in Chicago, except—well, it has been so. These parties owned the land—the people
442 that bought in 1830 of the United States—the water lots bought on the river and on the lake. On the river

Evidence before
Master.

they built out into what was called navigable water of the river, and on the lake at Randolph street. We considered, all of us, that we had the right to go out into the lake as far as we saw fit unless the State interfered with us. Those lots, when we bought them, I think, were not, when they were laid out, I think, at the corner of Randolph street and Michigan avenue. I think upon the plat, perhaps, the corner lot there was seventy-three feet from the east line of Michigan avenue to the water, as laid down upon the map. There was, in fact, more land there, more sand, but afterwards it was washed away very considerably. We considered that we had a right to go out as far as we pleased into the lake, and we did so. Mr. Stowell and myself and Mrs. Scammon and other parties there, just north of Randolph street, went out—I can't tell exactly how far, but perhaps 150 feet. I know when I sold the east end of Mrs. Scammon's lot to the Illinois Central Railroad Company we sold all east of the west line of what is now called Central avenue. I think the distance was 120 feet, 120 or 130 feet from—the distance from the east line of Michigan avenue to the west line of Central avenue as laid out by the Illinois Central Railroad Company is either 120 or 130 feet, and we sold to the Illinois Central Railroad Company, or those that didn't sell the whole land to the Illinois Central Railroad Company sold all the land east of that point, and that point was at least fifty or sixty feet into the lake, as it was surveyed by Mr. Burchard when he laid out the Fort Dearborn addition to Chicago. Then north of Lake street the hydraulic mills and before then the hydraulic company established their works there and extended a pier out some distance into the lake. My memory don't enable me to fix the distance, but I should suppose 200 or 300 feet into the lake, and that was maintained for a good many years, until Mr. Woodworth leased the premises and established a flouring mill there and did the pumping work for the hydraulic company, but it was occupied until the property went or till the east portion of it was disposed of in some way to the Illinois Central Railroad Company or the Michigan Central Railroad Company, I suppose it was the Illinois Central, and north of that Charles Walker and James P. Collins, who had bought lots on this same Michigan avenue fronting west; they extended out into the old river and into the lake a great distance. My impression was some 600 or 700 feet that Mr. Walker told me he had gone out there. I recollect of being down there and seeing his work

and seeing what he had done; may not have been as much as that, but I think so.

Evidence before
Master.

Q. In the laying out of the original town and the canal commissioners' plat of fractional section 15 how was it as to the bank of the river and of the lake?

A. Well, the original commissioners that laid out the original town, I think, were Charles Dunn and Dr. Jayne, Judge Trumbull's father-in-law, and I guess I have forgotten the other man, but I know from conversation with
443 Dr. Jayne and I know from the understanding that was had upon the subject when they were here. These gentlemen all coming from the South, where they were acquainted with the river system, in laying out the original town they left a margin of the river all free for levees, as is the river system, you know.

Q. In the South?

A. Yes, sir; everywhere on the Ohio and Mississippi rivers and the Missouri river, you know, there were levees for the landing of goods and so as to accommodate the rise and fall of the river in high and low water. They knew nothing about tides—that is, so far as its application to Western rivers is concerned.

Q. You apply your reply to the Ohio, Mississippi, and Missouri rivers?

A. Yes, sir; and this town was laid out in the same way and on the original map of Chicago that was made by the proprietors in 1830. That original map I have seen and have seen it in the recorder's office. It got lost. I don't know where—somewhere in the southern part of the State—and Mr. Hamilton was then the recorder, and I have seen that map, and it was re-recorded by the new commissioner when Thornton and Archer and Hubbard were made canal commissioners. By that map it was all left, as I state, for levees from the line of the lots on South Water street and East Water street and West Water street and North Water street to the river, and the same plan was carried out here in the laying out of fractional section 15. General Thornton, who was the controlling spirit of the board of commissioners at that time, laid this out as a grand levee from Michigan avenue to the lake, and I know that the lots were cried at that time as fronting on that grand levee or plaza. My impression is that Gen. Thornton used the word levee, but I know quite soon after that I know these lots were prized a great deal higher

Evidence before
Master.

and brought a good deal more money because they were fronting on this wide street that extended to the lake.

Q. Was not the owner of property on the bank of the lake by such custom and usage entitled to use the water front for wharves, piers, and quays out as far as deep water, provided he did not interrupt, impede, or obstruct the navigation?

(Objected to by Mr. Ayer on the ground that it assumes that there was a valid custom or usage.)

A. When I came around the lakes, in 1835, I found the custom of extending these piers all around, at every port. In those early times the steamboats used to touch at every port, every little town on the lake where there was a pier or anything to land upon, and that custom was then universal. I don't know that there was ever any question raised as to how far you might extend out into the lake, because no one objected to the length of the pier; the longer the pier was the better the steamboats liked it; but I understand, have always understood, that our supreme court so decided in that case between Laflin and the city, that that was the law. I think it is in the 49th volume of the Illinois Reports where

444 Judge Walker gives the opinion and says that they have the right; that the abutting owner had a right to extend out (that was a case on the river) to the middle of the river, and having built his wharf there the city couldn't take it away or order it taken down or remove it for the purpose of widening the channel of the river without condemning it.

Q. When you came around the lakes, in 1835, from what port did you start?

A. I started from the port of Buffalo.

Q. What lakes did you go through?

A. Well, more than that. I started from the port of Oswego and went through Lake Ontario, through Lake Erie, Lake St. Clair, Lake Huron, and then down into Georgian bay and back again through Death's Door into Lake Michigan to Chicago; and so I went the whole line of the lakes, as you may say.

Q. You have had experience in going around the lakes since that time, have you not?

A. I have been around a good many times.

Q. Have you known any change in that usage from 1835 to this time?

(Objected to by Mr. Ayer.)

A. I never have; I think it has been uniform.

Cross-examination by Mr. Ayer.

Q. Will you state where William F. Thornton resided in 1836, who was one of the canal commissioners who laid out fractional section 15?

A. Resided at Shelbyville. He was a Virginian, from Loudoun county, Virginia; lived awhile in Kentucky; then moved to Illinois and settled at Louisville.

Q. I think you stated, Mr. Scammon, that this wide street or levee along the bank of the lake was laid out by these canal commissioners in conformity to the very general custom which prevailed in laying out towns on the Mississippi and Ohio rivers?

A. Yes, sir; that is my understanding and, I think, the understanding of everybody at that time.

Q. When these piers or wharves were built out into the lake by the owners of the shore, as you have stated, it was done while the State owned the land under the water, I suppose, before the State had made any grants or conveyances of any of the land under the water?

A. I think it has been done all the time, whether the State owned it or it was the territory of the United States. I think there has never been any change in that. Everybody has run his wharf out here into the lake.

Q. You didn't reside here and never was in Illinois before Illinois became a state?

A. No; Illinois was a State, but Wisconsin was not, nor was Michigan a State when I came here.

Q. But no portion of the soil under the lake had at those times been granted to private individuals by any authority?

445 A. Not to my knowledge.

Q. I understood you to say that when these piers were built no objection had been interposed by the State or by any public authority?

A. I never heard of any.

Q. The ground on which the supreme court decided that a riparian owner on the Chicago river had the right to construct wharves and maintain them in front of his property was that he owns to the thread of the stream?

A. Yes, sir; my recollection is they held that, but they held that the owner of the lot had riparian rights that could not be interfered with.

Evidence before
Master.

Q. But the doctrine that has prevailed in this state in regard to the ownership of land along the Chicago river is that the riparian owner is bounded by the thread of the stream. Is that your understanding?

A. Yes, sir.

Q. On the lake shore the owner of the land is bounded by ordinary water mark.

A. I didn't intend to give a legal opinion, but only to state what I understood to have been decided. It has always been the understanding of all of us, and I have acted upon it here and down on the lake shore when I put out my piers, that anybody had a right to extend out his pier into the lake as far as he saw fit unless the sovereignty objected.

Q. I want to go back to a portion of your examination the other day, where you spoke about the process of abrasion along the lake shore here, say, south of Randolph street, after the construction of the piers at the mouth of the river. Will you state now how early that process of abrasion commenced, according to your observation?

A. I do not recollect exactly when it commenced, but I should suppose about 1838—that is, on the shore. Before that the sand bar was washed away, but I don't think that there was much abrasion before. I doubt whether there was before 1838.

Q. Was that soon after the extension of the north pier or either of the piers?

A. I think so.

Q. From that time down to 1850 was that process constant or otherwise?

A. Well, I think I stated in my testimony before, which was the fact, that as they extended the pier the current was changed, and the further they extended it the more powerful was the current, and from the time, say 1837—well, perhaps the latter part of 1836; I am not quite sure—I know that in 1836 this sand bar had increased and was much larger than it was in 1835, when I came here, when there was an attempt to pre-empt it or squat on it by Kinzie and Noble and Walker or a combination of them; I think it was larger than I had ever known it before. That was in 1836, I think, say in the fall of 1836, the survey that you had here; that was in 1836.

By Mr. Trumbull: Talcott's survey was in 1836?

446 A. Yes; now, that winter there came up, or the early spring there came up, a great storm that washed away

a great portion of that sand bar, and from that time on there was gradually a current brought upon the shore, first in Fort Dearborn addition, and it began to wear away; I think that I did not notice its wearing away much until as late as 1838; I think it must have been in 1838 or 1839 that the graves were washed out, the graves that I referred to in my former testimony, near the Handy house; but between that, 1838 and 1839, it was not washed away a good deal, because you see from the survey that Mr. Burchard made that the bank was still seventy-three feet deep at the north line of Randolph street, according to his map. In 1839, when Mr. Burchard had this survey made by Talcott for Mr. Bradley, I think he was county surveyor. I happen to have this map in my pocket that I had here the other day. I think these lots are marked seventy-three feet—seventy-two or seventy-three feet. Well, you see, here was the old line, a good long distance from that, nearly as far again. This little map here has a sketch of the old line as it was supposed to be, and they had it way up there in fractional section 10, and it wore away first very gradually; then came great storms like that which carried away the sand bar, and then great pieces would break off from the bank and fall down; then, when the winds changed—if the wind was in the southeast that would stop this current of sand that was always running around this north pier and would blow it up against the bank, and the bank would seem to increase and extend; the sand bar would be very much larger—I mean the sand between the high bank and the water would be greatly increased. This action was north of Randolph street, but it didn't do anything south of Randolph street until the pier was extended out a good deal farther; I recollect after I built my house down there at the corner of Randolph street and Michigan avenue, which was probably in 1841, that there was quite a high grove at the corner of Madison street and Michigan avenue, east of old John Wright's house, located there at the corner where he had planted and cultivated, and beyond that bank was quite an accumulation of sand extending into the lake; and when I was in the council, in 1845, and we were called upon to protect the lake shore—to do something additional to protect the lake shore—I think we were called upon to do nothing except up in section 10. It was a year or two after that before there was any perceptible washing on section 15. As I tried to explain when I gave my testimony before, just as they extended the pier the trend of the current was changed,

Evidence
Master.

Evidence before
Master.

and it washed further and further down the lake until, as I stated before, in 1851 or 1852, when Mr. Gurnee was mayor, it had become so troublesome that the traveled street was in danger.

Q. After that process of abrasion commenced south of Madison street will you state whether it was constant down to 1852?

(Objected to by Mr. Bradley on the ground that he had not stated a process of abrasion.)

A. My recollection is that I stated in my direct examination before that as the current changed it formed a sort of undertow and washed upon the shore, and that that so weakened the bank that when there came up a great storm the bank fell off in large quantities sometimes into the lake. My understanding of it was that it changed this current and carried the current in a southwesterly direction, and that that washed away, and there was a constant wear where it was strong, and the sand that was washed away went farther down, and there was rather an accumulation farther down from where the current struck the bank, but it was a gradual process of undermining the bank, but whenever the wind would be in a southeasterly direction the sand that was in suspension there in the water would be thrown back and piled up against the bank, so that sometimes it would seem as though the land was making on, and again another great storm would come and wash that all away, and more, too.

Q. The rapidity of this process of abrasion depended, I suppose, entirely upon the course of the winds and waves and the direction of the winds, did it not?

A. Well, I should say so; yes; the rapidity of it; but every one who has lived upon the lake shore knows that just as you extend the pier out you change the current and it gradually washes away. As an illustration, you take what they call Scammon's land, down there at 33d street, where I extended those piers, land that I bought of Judge Douglas' estate there; we had about three-quarters of an acre outside of the east line of the Illinois Central railroad that had accumulated from this abrasion and from the wash and from the sand that had come down from north of the pier. I don't know whether there is a current in the lake, but my belief is that there is a current in the lake that flows south along the shore, and I have never known any accumulation from a southern current anywhere on the lake shore; never noticed any except when there was wind in a southwest direction, and

the sand that was in suspension or was traveling south was thrown back and driven back by this southeastern wind, but otherwise than that it has seemed to me always since I have been here that there was a current all the time in the lake running from the north south along the west shore of Lake Michigan.

Q. Mr. Scammon, will you please state whether the state of the shore between Madison street and Park row was in a constant process of change during the period to which you have referred, and that at some times the change was gradual and imperceptible, at other times more rapid, depending upon the direction of the winds and the force and the strength of the waves?

A. Well, from 1835 to 1852, when Mr. Gurnee was mayor, is some some seventeen years. Now, sometimes the work was suspended upon the harbor, and that would suspend any change, but I think the fair statement of the case is this: that the process of disintegration of the east bank began to take place the moment that the north pier was extended into the lake to any considerable distance, and that just as far as that was extended this same cause operated, being modified, however, from year to year, from time 448 to time by the winds, storms, and the height of the water. I suppose it is known to every person that at certain seasons of the year the water in the lake is a great deal higher than it is at other times, and there are certain seasons, certain years, when the water is a good deal higher.

Q. That depends upon the wind, does it not?

A. Well, I don't know what it depends upon. I was reading in the paper to-day, as an illustration of it, that the water at Milwaukee to-day was supposed to be a great deal higher than it ever was before, and then there was a statement in the paper about the measurements which had been made by the Government, and while it was stated that the water was very high, nevertheless it was not as high as it was two or three years ago by some feet, and it was not as high as it was in 1838, I think, by perhaps three or four feet, and in that same article that observation at Milwaukee had shown that in the winter and spring months the water was always a great deal lower than it was in the fall months; that in October and November it was generally two or three feet higher than it was at any other season of the year. I don't believe anybody knows exactly why it is that the lake rises and falls. Captain Hugunin who used to live here and had

Evidence left
Master.

Evidence before
Master.

been a navigator upon the lakes for forty or fifty years and was a very intelligent man—he and a great many other navigators insisted that there was something like the tide; that there was a rise in the waters of the lake for seven years and then a falling for seven years, but all of us that have lived here have noticed, and I did particularly when I lived down there on the corner of Randolph street and Michigan avenue, that some years the water would be two or three feet higher than it was other years, and there was a great deal of difference at different seasons of the year. There were various theories about it, and learned men that have been here racked their brains. Colonel Graham insisted there was a tide in the lake, and I think he demonstrated it by a good many observations that it was about three-fourths of an inch, but none of the rest of us could see it.

Q. You have observed, I suppose, have you not, that after the continuance of easterly and northeasterly winds for several days the lake upon this shore is much higher than at other times?

A. Yes, sir; there are great changes that you see manifestly come from the winds, but there have been great changes here in the water; have known the water to rise here very suddenly seven or eight or ten feet, and I recollect at one time, many years ago, it flooded the basements of stores on the north side of the river and came up in South Water street and Dearborn street and even in Washington street very suddenly, and nobody could ever tell what was the reason.

Q. It may have been, may it not, for aught you know, the prevalence of strong easterly or northeasterly winds on portions of the lake remote from Chicago?

A. That could not have been, because it came up suddenly, and it went down again as suddenly. From the time that it came up suddenly, say at 7 o'clock in the evening, it disappeared entirely before 9 o'clock.

449 Q. The philosophy of this thing doesn't seem very important, but I will ask you this: The actual rainfall in this lake region is pretty uniform, is it not, from year to year, not much difference, which will account for the difference in the height of the water?

A. I think not. I guess that the supply of water in Lake Michigan does not come all from surface drainage, but there must be some underground source; don't see how you can account for it; there isn't rainfall enough in the valley of these lakes to produce what we see.

Redirect examination by Mr. Fuller:

Evidence before
Master.

Q. Didn't the bank of the lake south of the Chicago river go away rapidly by reason of the causes you have mentioned?

A. Yes, sir; it did. It went away rapidly; it went away gradually. This current was constantly going along, just like a curret that runs down by the side of a house, undermining it, but then when there would be a great storm to give velocity and intensity to this current it would go off in great chunks.

Q. The bank would?

A. Yes, sir; fall down.

Recross-examination by Mr. Ayer:

Q. At other times, as I understand you, gradually and imperceptibly?

A. Yes, sir; that is so, and at other times seemed to accumulate.

Q. Sometimes accumulate?

A. Yes, sir.

Q. And always in a constant state of change, whether perceptible to the eye or not, could see it after a few days, either an accretion or a decretion?

A. I think so, excepting when the water was very low. I think when the water was very low the banks and everything would be sometimes very stationary for months at a time.

May 20, 1887.

FERNANDO JONES recalled for further examination by Mr. Fuller:

Q. Do you know of any custom or usage prevailing on the shore of Lake Michigan, at or near Chicago, as to the riparian owners bounded by the lake in reference to the right to use, occupy, and improve by wharves, piers, and quays the land covered by water? If so, state it and your means of knowledge.

(Objected to by Mr. Ayer on the ground that it is incompetent.)

A. I do not know of a custom of that kind. It was that the riparian owners were accustomed to build wharves and docks and recover, to a certain extent, the land washed away

Evidence before
Master.

immediately in the vicinity of Chicago. That has not been so much a custom to actually do it as to talk about it and speak about doing it and occasionally spend a little money and find that the elements were against them and not carry it out, although the custom has been in the immediate vicinity of Chicago just as I have known it in other parts of the shore; wherever they felt that it was for their interest they have been willing to put out piers and have done it to a considerable extent. I have myself spent a good deal of money in endeavoring to hold and continue and recver and build piers, more probably south of 18th street.

Q. What has been your knowledge as to that custom and usage on Lake Michigan and the other lakes—Ontario, Erie, St. Clair, Huron, Superior?

A. I was born within sight of Lake Erie. I went with my father, in the year 1824, to Buffalo, and shortly after that he was made light-house keeper and we moved on to the lake shore at the mouth of Buffalo creek. My father was deputy superintendent of the work of building the pier for the purpose of putting the light-house upon the end of it, and I noticed, as early as the age of nine or ten years, the action of the water on the shore. For a number of years after that, until I came to Chicago in my fifteenth year, I observed the action of the water and the custom of the people at the mouth of Buffalo creek—there is something of the same action at Buffalo creek. A bar was formed on the outside and the river turned around and came into the lake quite a distance from the natural mouth down towards Black Rock. That closed up. The sand bar closed up with the main shore, and when the pier which answers to our south pier was built it left a pond on the lake shore outside of it. The owners took some pains to drive some piles; I know they got the privilege from the Government of using a pile-driver to drive some piles on the lower side down the river—towards Niagara Falls—drive some piles and put in some timbers for the purpose of holding and aiding their riparian privileges, and I remember that the washing of the water and of the winds did a good deal towards filling up that pond which had filled up a part of the river. I know that at the mouth of the streams running into Lake Erie, Cattaraugus creek and Silver creek, and at Dunkirk and Portland harbor there were some of the parties that I know and have known since at Silver creek. Another was Oliver Lee; afterwards

had a bank at Buffalo, and his family were interested in a pier. A small steamer went from Buffalo; went up and landed there at those piers. I remember because I went to school at Fredonia, back of Dunkirk; remember of noticing those piers and that we landed at them. I remember in some cases the parties that owned them; I know that my brother had a pier of that kind at Manitowoc, on this lake. Some friends of mine at Buffalo were interested in the same kind of pier at New Buffalo, others at Michigan City. One gentleman, who was for a short time senator of Michigan, at St. Joseph, had a private pier along the river, at the mouth of the river. At the mouth of Deep river there was some parties—Moore; along between this and Calumet there have been a number of instances of the custom of building out, and the general custom and the general talk in reference to it, it seemed to me that it was all one way; that they supposed they had not only the privilege but the right to build. They acted on that.

Q. What was your course in coming to Chicago the first time, how did you come?

A. Came from Buffalo around the lakes.

Q. Was that custom or usage obtaining throughout the lakes at places where there was appropriate—

A. There were; all along the shore of the lake that we stopped or rather along the shore of the Detroit and St. Clair rivers there were private docks where the boat would land for supplies and wood, and at the places this side of Mackinac. I know since that steamers landed at those, and most of the docks were private docks, and a number of them, to my knowledge, were where the parties owned the land and the timber, because they were selling the wood to steamers.

Q. Was that so as to the shores of Lake Michigan?

A. All along the shore of Lake Michigan.

Q. You have had frequent opportunity of observing that since 1835, have you not?

A. Oh, yes, sir.

Q. Has that usage prevailed for the last fifty-two years, to your knowledge?

A. It has up to the present time, except in those cases where the Government at the mouth of the streams have built piers and made it unprofitable to parties to have piers of their own.

Q. You mean the United States Government?

A. United States Government.

Evidence before
Master.

Cross-examination by Mr. Ayer:

Q. What was the object of those piers to which you refer; were they built as a protection to the shore or were they built in aid of navigation?

A. They were mostly for purposes of business—business with the steamers and vessels.

Q. For making landing places?

A. For making landing places, in some cases they were altogether and in some cases partly taking advantage, where the locations admitted of it, of this accretion of land on one side of it; mainly on the south side.

Q. These piers thrown out from this shore of the lake generally caused an accretion on the north side of the pier.

A. Generally.

Q. Well, I presume they have been built in this vicinity—I mean those that have been thrown out into the lake at right angles to this shore have been built almost invariably, have they not, as a protection to the shore and for the purpose of making ground north of the piers by accretion?

A. Yes, sir; I should think so generally. There have been some cases where they put out piers for the purpose of landing. There is one now at Jackson park that is built for the purpose of sort of an excursion pier.

Q. For pleasure boats to land?

A. Where pleasure boats land. Generally they have been for the protection of the shore or the protection of the railroad.

Q. You know, then, of no custom that has prevailed in this State inconsistent with the idea that any riparian owner on the lake had a right to construct a dock or wharf out in front of his land into deep water in aid of navigation?

A. I know of no custom in opposition to that. On the contrary, from my observation and from the conversation that I have had and the discussions about it, I think that is understood to be the custom and I think perhaps the law.

Q. Was there ever, within your knowledge, any attempt made by the State authorities to interfere with that practice during all this period which your testimony covers?

A. I know of none by the State authorities. The United States attempted at one time to interfere with the rights of the riparian owners on the north side of the pier. My father

Q. That is where they have made improvements on the shore, I suppose—the United States authorities?

A. They came on my father's land and built a pier across the lower end of it, and they claimed that by virtue of that position they were entitled to any land that might be made by that action, but I think the case never came to trial.

Q. That claim was abandoned, wasn't it?

A. It was submitted either to the Attorney General or some legal authority of some of the departments, and it never was attempted to be enforced any further.

Q. You know of no controversy or question that has ever arisen, do you, between the State or any grantee of the State and the owner of land upon the shore in regard to the right to construct and maintain piers?

A. No legal controversy. I know of discussions in reference to it almost from the time that I arrived here or shortly after, when this question of the location by pre-emption on the said sand bar, as we term it, was made. At that time there were discussions between parties representing the Government and the State—discussions and illustrations of the question from that time to this; but I know of no case where they have interfered or intervened to prevent the custom being continued that I have mentioned.

Q. Do you know of any instance in which the State has granted to any individual or corporate body any of the lands under the waters of the lake except in the case of the Illinois Central Railroad Company?

(The latter part of that question objected to by Mr. Fuller.)

Q. Without reference to the case of the Illinois Central Railroad Company, do you know of any instance in which the State has granted lands under the waters of the lake to any private individual or any corporate body, public or private?

A. I don't know of any case under those terms granting specifically the submerged lands to any other. My answer as to my knowledge would not include the granting of lands along the shore.

Q. You mean the lands under the water?

A. And intentionally, perhaps, including the submerged lands.

By Mr. Fuller: I now offer in evidence on behalf of the defendant The City of Chicago the deposition of Stephen A. Douglas, taken in the case of George C. Bates v. The Illinois Central Railroad Company, read on the 11th day of Novem-

Evidence before
Master.

ber, 1859, upon the trial of the cause. I will read the 7th interrogatory and the answer.

By Mr. Ayer: I object to the evidence on the ground that it is incompetent.

It is stipulated by counsel that Stephen A. Douglas, the witness whose testimony is now offered in evidence, died on the 3d day of June, 1861.

By Mr. Ayer: I understand that the deposition which is now offered in evidence appears to have been a deposition which was offered in evidence on behalf of plaintiff in the case of *Bates v. Illinois Central Railroad Company* in 1859. I object that that deposition is not admissible in evidence in this case.

By Mr. Fuller: I don't care to offer anything except the interrogatory 7th and the answer to it. If any of the counsel desire any other portion of the deposition, they may call attention to that.

"Interrogatory seventh. Do you know of any custom or usage prevailing on the shore of Lake Michigan at or near Chicago as to the riparian owners bounded by the lake; if so, where, by said custom and usage, is the lake boundary of land? Is not the owner of such property by such custom and usage entitled to use the water front out as far as deep water, provided he does not interrupt, impede, or obstruct the navigation? State what you know of such custom or usage and the rights of riparian owners on Lake Michigan to use, occupy, improve by wharves, piers, quays, or filling in the land covered by water. State these rights as based on custom and usage and your knowledge thereon."

To the seventh interrogatory he saith:

"I believe it is the custom and usage of the riparian proprietor on Lake Michigan to use the water front as far as deep water, provided it does not obstruct navigation, and to construct piers and wharves into the lake, and such other work as may add to the value of the land or be convenient for the use to which it is devoted. I have always understood that the riparian proprietors obtain the right to do this according to the laws of the land, but whether such right derives its validity from usage, custom, common law, statutory enactments, or constitutional provisions remains, so far as I know, undetermined by the courts."

409 CHARLES C. P. HOLDEN, being first duly sworn, testified on behalf of defendant Illinois Central Railroad Company as follows:

By Mr. Ayer: How long have you resided in Chicago?

A. I have lived in Chicago and close proximity to it since 1836, June 30th, having lived in Chicago since 1842 within the corporate limits.

Q. How were you employed in 1842?

A. I was employed in Charles Sweet's grocery store, on the North Side. That store was on North Water street, nearly opposite where S. F. Wright's office and his present livery stable is now situated.

Q. Do you recollect the condition of the lake shore between the river and 16th street during the period commencing in the spring of 1842 and terminating in February, 1842?

A. The knowledge that I have of the lake shore at 16th street is formed from my recollections of what I saw then and there in 1839 and 1840 and 1841.

Q. Well, you may state what your recollection is of the condition of the lake shore in that vicinity at that time.

A. My father settled at Skunk's Grove, thirty miles south of this, in 1836. That grove was right on the line of Will and Cook counties, it being principally in Will county, on the old Sauc trail road. He settled there in the summer of 1836. Two years thereafter Robert A. Kinzie came down from Chicago and opened up a farm on the east side of the grove, he owning by grant or otherwise a large tract of land both in Cook and Will counties, took up a large space and made great improvements of great value.

Q. Who was Kinzie?

A. He was the son of James or John Kinzie here, the first settler on the North Side, opposite the old fort.

Q. Had he lived in Chicago himself, this Robert?

A. Yes, sir; born here in 1810.

Q. Now proceed.

A. In 1840 or 1841 I worked for Mr. Kinzie considerable, doing farm work, such as the boys did at that time, helping him harvesting and otherwise, and along after his wheat was harvested I drove a team—one of his teams—to this city. He drove one, I drove the other. He came in with two teams. We stopped the first night at Rexford's, then came over to Smith's tavern, which was ten miles out, where

Evidence before
Master.

we struck the heavy sand ridge, came on up to Myrick's, and there struck the lake. That hotel was out here three miles. There we struck what was termed the shore road. We came on that road up to about, I should think, 22d or 23d streets, where we struck the sand hills. The sand hills were where the massacre had taken place in 1812. I had known of the fact by passing over the ground frequently with my father or others prior to that time, in 1839 or 1840. Coming on,

about 22d street we passed a grave-yard. The graves
470 were on the left-hand side as we were coming in, which I had seen frequently before. Mr. Kinzie said to me—

(Objected to by Mr. Bradley, to what Mr. Kinzie said, as incompetent, irrelevant, and mere hearsay.)

—called me by name: We will stop here in a few minutes when we get a little farther along to rest and I will tell you about this grave-yard. The road was very heavy, made so from the great number of teams passing over it, and close to the shore of the lake—close to the sand hills—a great quantity of teams coming in here with their commodities from the country, this being their market, and it was very much cut up; of course, we had to stop occasionally to rest. We came on nearly opposite the old Clarke homestead. The Clarke house you could see on the prairie road down opposite Smith's, ten miles, probably; a very slightly structure; very large frame house. I think my friend here, Mr. McCagg, has seen it a great many times; a very slightly house. I have drafted a little plat here to refresh my recollection and I will show that house on the plat. It is just south of 16th street, on the east side of Michigan avenue. This is H. B. Clarke's homestead. When we got nearly opposite his house Mr. Kinzie stopped and then went on to tell me about how the first nucleus of that grave-yard was formed.

Q. I want you to go on to state what the condition of the lake shore was there.

A. I will do it, but I want to bring around the cause. He went on to say that the first burials there were soldiers that were killed in the massacre of 1812. Now, says he, calling me by name, if you will go over on that sand hill there and take a look there I will tell you more about it. So I got down from the wagon and went over to the foot of the sand hills some little distance and climbed up. It was covered with cedars and pines, small pines, prickly bushes and various kinds of bushes, and I got to the top of it, I should think thirty feet high; perhaps not so high. It was hard getting up; it was

loose sand. Finally, I got to the top of the sand hill and beyond was a hollow; then the other side of the hollow was another row of sand hills very much lower and between me and the lake. Then I came down from those sand hills on the beach. Farther on was the lake. I couldn't speak to Mr. Kinzie on account of the distance from the wagon. I took a good look there, and when I came back he told me—said he, Where you were there looking over the lake, nearly opposite where you were standing, was where the people were killed in 1812. My father was here, my sister was here, my brother-in-law was here. I think he named some other relatives that were here at the time. It was very interesting to me. When I stood on the hill I could see through to the lake by looking through between the lower sand hills beyond them. That is what I saw then and there.

Q. Which side of the Clarke house was that sand hill to which you went?

A. I should think a trifle south of due east.

Q. Nearer the lake or farther from it?

471 A. It was away over to the main traveled sand-hill road—the lake-shore road. It was probably three blocks—three of the present blocks—east of the Clarke house.

Q. Some considerable distance east?

A. Yes, sir.

Q. Southeast from the Clarke house?

A. Nearly east; a trifle south.

Q. Do you recollect now anything about how far the distance from the Clarke house was, we will say, which you say fronted on Michigan avenue, as I understood it?

A. Yes, sir.

Q. And stood on the east side of Michigan avenue south of 16th street?

A. Yes, sir.

Q. How did the distance at that time from the Clarke house to the lake compare with the distance from that same site now to the margin of the water in the lake?

A. It was entirely different from what it is now, Mr. Ayer. It was very much farther then to the water than it is now.

Q. Very much farther?

A. Very much.

Q. Have you any definite idea or recollection in your own mind?

A. Yes, sir; I have.

Evidence before
Master.

Q. Just give us your best recollection about it.

A. This road that was traveled by the people of that day along the lake shore—not the old road that the soldiers went on in 1812, because they went inside of the sand hills, I think, but the one traveled at that day, on the west side of the sand hills—that road along at that point was within 150 to 200 feet of the sand hills—of the foot of the sand hills. Then you came up on the first group of the sand hills, going across quite a hollow; some would call it a ravine; then you struck the lower bunch of sand hills; went up and over them down on the easterly side; on the beach then, a long distance by the beach to the water's edge. It must have been from that road, I should say, well on to 1,000 to 1,200 feet to the water's edge.

Q. Will you state whether there was or not a point anywhere in that vicinity projecting into the lake; if so, where was that point?

A. The point of land that projected the farthest out was just a little north of 15th street or along about where 15th street now is.

Q. Now, during your residence in Chicago, between 1842 and 1852, did you occasionally or not go down there in that part of the town?

A. Hardly ever as far down as that.

Q. Do you know whether there was during that period or not any process of abrasion going on along that portion of the lake?

A. Down there?

Q. Yes, sir; between 1840 and 1852.

A. I knew between 1840 and 1854 it was very great; it was very great. I know of my own knowledge of the going away or disappearance of large quantities this side of Park row.

Q. This side of Park row?

A. Yes, sir; north of it.

Q. Now, I will confine your attention to the lake shore south of Park row, between that and 16th street.

A. Between that and 16th street and that and 1854. Well, it is very hard to tell, Mr. Ayer; the changes there were wonderful. Similar changes took place down by Ellis's; he had to move his house twice.

Q. Where was that?

A. That was farther south; had to move his house twice.

Q. Why?

A. The lake washed up to him, and he was compelled to move his house twice. I think his house was first located east of where the tracks of your road are now located.

Q. Have you been down to the lake shore in the vicinity of 14th and 16th streets recently?

A. Yes, sir; I have.

Q. You have seen the works of the Illinois Central Railroad Company there, have you?

A. Yes, sir.

Q. Will you state whether in 1840 the dry land extended out into the lake as far as the present works are extended there or for a long distance? State what the fact was.

A. I believe the fact to be that the dry land at that point extended farther east than any portion of the Illinois Central Railroad Company's works at the present time.

Q. Will you state in regard to the shore this side of Park row between 1842 and 1852?

A. In 1842, when I came to Chicago to work on the North Side, I frequently used to go down on the piers on the North Side and come over on the South Side. On the lake shore, about Madison street, there was a driveway that went down into the lake. That driveway, from the east line of Michigan avenue roadway, cutting a road the ordinary width to the brink of the land, where it started to slope off, I should think it was 250 to 300 feet; perhaps more. I don't say it was this north of that point, but from that point south I am talking about and profess to know something about. Then there was a long slope, a wagon-way, down. I should think it was from 250 to 300 feet to the water's edge from the point where you started down this slope on the wagon-way, where the carts drove down and out into the lake to get water.

Q. That was at the foot of Madison street?

A. I should think about the foot of Madison street. From that south at that time the average distance from Michigan avenue to the sloping portion of the earth—well, it would run from 300 feet up to, I should think, 600 to 800 down about Park row, would be my impression. Between that time and 1845 there were large storms at different times. In

1845 the incursions of the lake had been so great on the 473 water's edge—1844 and 1845, must have been as early as 1845—the city did something in the way of making improvements along the lake shore by driving in a system of piles, and some little crib work extended out places, sort of "V" shape. In the fall of 1846, I think, there was a great

Evidence before
Master.

gale—regular northeaster. We were all down on the north pier below Newberry and Dole's warehouse looking at a vessel that was about to go ashore, and all hands were worrying as to the fate of those on the vessel, and they rigged up some life-boats or whatever they had there at the time to go to their rescue. The vessel finally went ashore down about opposite H. G. Hubbard's. He lived in Hubbard's court, below Harrison street. After that the breaking away of the entire shore line was—well, it seemed to be a wreck; it had come in and left the pilings way outside in many places, probably from fifty to, I should think, seventy-five feet; it would break off in large pieces; then subsequently the wash from the lake would come in and dissolve these parcels and parts, and when a storm would come up it would be—it would be virtually beached, with the exception of this piling that I speak of. I think the city at the same time started in to put in some improvements under the new order of things up near Michigan avenue. In 1854 the lake had taken out all the land clear in to the junction (I am going now north of Madison street) of Randolph street and Michigan avenue. I say all; it was clear up to the very joint of that street. The reason I know this is that subsequent to that there was no wash there. Then the Illinois Central people got their outside breakwater in and there was no wash from the shore by the action of the natural waves, and subsequently the firm of J. P. Smith & Co., ice-men, erected an ice-house on the corner of lake shore and Randolph street, and then they cut the ice down in the lake—water was deep—cutting it down as far as Van Buren street, and perhaps below, and it had washed nearly in to the edge of Michigan avenue—I mean the roadway proper—down to about Hubbard court, then slanted off, and the meanders of the shore run down to about the present point of Park row, water coming up very near to the point.

— Mr. Holden, will you state whether the action of the lake along that portion of the shore during the period you have mentioned appeared to be uniform, whether it was a constant action of abrasion or whether there were occasional accretions formed and then abrasions?

A. There were no accretions formed within my recollection; there used to be some accretions up by south pier of sand blown over and drifted up against the south pier, but down in that region it was constantly washing away; there would be a large gale and then the slow process from that time till another came.

Q. How was it during periods of calm, when there was no storm or gale? Evidence before Master.

A. The ebb of the water sets in and back, in and back all the time, and every now and then a larger wave comes in and takes a certain portion of the earth back with it.

Q. Was this process then constant?

474 A. Constant.

Q. Was it perceptible?

A. Hardly; would be perceptible if you would go away for a little time. By the way, I could tell you about that.

Q. Well.

A. In the spring of 1847 I enlisted in the service of the Government and went to the Mexican war and was gone for nineteen months, and when I came back, arriving back here the last of November or early in December, 1848—and the next spring when I went out over that territory I hardly knew it, the change had been so great.

Q. You have lived in Chicago continuously, have you not, Mr. Holden, since your return from the Mexican war?

A. I was in California four years—from 1850 to 1854.

Q. You were not here then when the railroad was built?

A. No, sir; that is what I said—in 1854. I was with A. H. & C. Burley in 1849, in their book store; frequently saw my friend Mr. McCagg there, 122 Lake street.

Q. You have been familiar with the growth of the city and take an interest in it since that time?

A. Since 1854?

Q. Since 1854.

A. I think so.

Q. How long have you been a member of the common council?

A. How long was I a member?

Q. Yes.

A. Twelve years lacking four or five months; from May, 1861, till December, 1872, continuously.

Cross-examination by Mr. Fuller:

Q. What was the condition, at the time you came up with Mr. Kinzie, of the shore between Park row, as it is called, and Randolph street?

A. It was a plain—open plain there between the road and the lake—open stretch.

Q. Between what road and the lake?

Evidence before
Master.

A. Between the traveled road. The traveled road came along about where Michigan avenue now is until a point about Van Buren street, I should think; then we worked off northwesterly till we reached the Catholic church at Madison street and Wabash avenue.

Q. Did the road that you traveled from 12th street north correspond to Michigan avenue?

A. I couldn't state distinctly. In places I should think it come very nearly north of Jackson avenue till we got about Van Buren street and Jackson street, then jogged off northwesterly to the Catholic church.

Q. When you jogged off at Van Buren street or Jackson street do you mean that you turned west or went diagonally across?

A. Went diagonally across.

475 Q. Was there any Van Buren street or Jackson street—traveled street—at that day?

A. I think not.

Q. Was there any Harrison or Congress?

A. I think not.

Q. Or Hubbard court?

A. I think not.

Q. There were no streets that came out and crossed Michigan avenue?

A. I think not. Hubbard court; Mr. H. G. Hubbard lived there in 1849; frequently down to his place.

Q. We are now speaking about 1840.

A. 1840; yes, sir.

Q. Now, between the road and the lake, what was the nature of the vegetation? Was there any grass there?

A. Near the roadway there was; yes.

Q. Was it all open and unenclosed?

A. No; there was a fence, I think, on the east side of Michigan avenue; that is my recollection.

Q. Wasn't that fence put there in 1845?

A. I think there was one there. Mr. Fuller; that is my recollection.

Q. What kind of a fence?

A. That I can't tell. I think it was—latterly I know there was a rough-board fence there.

Q. But before that?

A. I think it was a—well, I would think it was a board fence. I don't think it was a rail fence, as we saw some of them here at that time.

Q. From what point did that fence, if there were one, run and to what point

A. That I couldn't say.

Q. Was it continuous from 12th street down to Madison, for instance?

A. The roadway?

Q. No; the fence.

A. That I couldn't say.

Q. Could you tell whether there were any gates in it, or bars?

A. I know in 1842 there was an opening here at Madison street; I know the opening very well, because we used to go through it.

Q. How far from that opening was it from Michigan avenue to where you say it sloped down towards the lake?

A. I should think 250 to 300 feet.

Q. Then I understand you to say the slope itself was 200 to 250 feet to the water's edge?

A. I would think so; yes, sir.

Q. Drove your cows down there to water?

A. The water cart used to go down there to get water for the people; drive out into the lake, fill their carts, and go back.

Q. Who else was it used that way to the water—anything and anybody else except the water carts?

476 A. Everybody went there that wished to.

Q. This ground between Michigan avenue and the lake—who occupied it?

A. It was entirely open until you got north of Randolph street. North of Randolph street were houses.

Q. I mean between Randolph street and 12th street.

A. It was open.

Q. Kind of common?

A. Yes, sir; I would say so; that is my recollection.

Q. When did you first see it?

A. I first saw it, I think, in 1839; I first saw it in 1836, but not to pay any attention to it.

Q. You must have been very young in 1836.

A. I was nine years old.

Q. Then you saw it in 1839?

A. In 1839 I came to Chicago with my father, with what stuff he had to sell.

Q. Can you tell whether it had changed at all in its con-

Evidence before
Master.

dition between 1836 or 1839 and the time you drove in with Mr. Kinzie?

A. 1840?

O. 1840.

A. I can't say as to that.

Q. Was that driving in with Mr. Kinzie in 1840 or 1842?

A. It was in 1840 or 1841; I think it was 1840. I came to Chicago in the spring of 1842; came to go in the store on the North Side.

Q. How suddenly did this piece of ground become carried away after 1842, at any time?

A. Whenever a storm would come up, after that storm you would see the marks of devastation in the general breaking up of the shore line, which extended, as far as my knowledge then went, as far as I looked at it; seldom went farther south than Park row.

Q. These masses of earth became suddenly detached, then?

A. Yes, sir.

Q. How wide should you say that was, Mr. Holden—what was the average width from Madison street to Park row—in 1849?

A. In 1849 the inroads had been very great. The city had built protection probably as far down as Congress street—perhaps a little farther. This protection had been overlapped by the storms and the dead piling was away out from the shore, and I think they had put in another protection in 1849. I think it had reached Michigan avenue, along about Adams street.

Q. Well, how was it after that—say in 1850?

A. In 1854 it had reached Michigan avenue, clear down to about Hubbard court, plumb up to the street in places—gone into the street—and the street had to be restored.

Q. How was it in 1856?

A. The condition of things was the same in 1856.

Q. Was there not considerable ground between Michigan avenue and the water opposite Hubbard court and Congress street in 1856?

477 Not much opposite Congress street, according to my recollection.

Q. Hadn't there been a circular carrying away of the earth in 1856, so that at Madison street there was a greater

width from Michigan avenue to the water than there was at, say, Van Buren or Congress?

A. In 1856?

Q. Yes—that is, when I came here; that is why I ask the question.

A. 1856, at Madison street, the lake came clear up to the street at Michigan avenue.

Q. How was it opposite Washington street?

A. Clear down to the junction of Randolph street; it was in there.

Q. That is your recollection?

A. That is my recollection; might have been a trifle east, but only a trifle, and I fix that by the ice-cutting business that subsequently took place there.

Q. Your recollection is that Mr. Smith put his ice-house there, when?

A. Along in the sixties somewhere; we ordered the end of Randolph street filled; the city did, I think, about that time. Mr. Smith established an ice-house there.

Q. When you first went in the council?

A. Subsequent to that. They filled Randolph street, which gave the railroad people a chance to run their travel around Randolph street, which they didn't have before.

Q. Were there any pines down by Clark's house—pine trees?

A. On the lake shore?

Q. Yes.

A. Yes, sir; there were small pines.

Q. Was there any grove there of pines?

A. Not that I know of; usual sand-hill pines and some cedar and some of these prickly bushes; large quantity of bushes. Those sand-hills are as vivid to-day as they were at that time, to my mind.

Q. Where was the site of the massacre, as you understood it?

A. As I understood it, it was somewhere between 22nd street and 16th street. We stopped, about the time I have mentioned, to rest at about what is now 17th street, or between 17th and 18th streets. Mr. Kinzie didn't point out the exact place where the massacre was but he said from that point they saw where the soldiers were killed and the women and children. He said, too, as it is my recollection, that the soldiers were taking the road on the lake, east of the sand hills, I think, at that time; that is my recollection.

Evidence before
Master.

Q. Did you observe in 1849 or from 1842 to 1849 whether the construction of the piers at the mouth of the river produced any effect on the current of the lake or the movement of the waters of the lake?

A. I had not arrived at that age, Mr. Fuller, that I made those things a study; I don't know that I did. I have since that time.

Q. Well, say 1856?

478 A. I have noticed from 1855 that the actions of the lake are a great deal more severe south of the pier than they were north. On the north ground was continually being made, while on the south the action of the water was continually in the direction of destroying the shore of the lake. It has been since this outer harbor has been constructed running north and south; it has been one of the perceptible things to any being with an eye that the waves strike that north and south pier, flow in around it, then come into the lake shore and bring destruction with it continuously.

Q. North?

A. Yes, sir.

By Mr. Ayer: North of what?

A. Striking the shore line about 14th, 15th, 16th, and 18th streets—all along there. It has washed out the shore line, in spite of all the work that the Illinois Central could put in there, taking out crib-work, stone-work, piles. It is one of the most destructive elements I know of or can think of at that point.

Q. You think that the destructive force of the waves of the lake or the direction of storms is increased by the construction by the United States Government of the outer harbor piers?

A. I think the destruction is greater south of that point than it would have been if the harbor had not been built. Opposite this the destruction has been very much less. The pier saves it. That is self-evident to any one that will go down there and look at it.

Cross-examination by Mr. McCagg:

Q. The Clarke house at this time stood right on the prairie?

A. On the prairie. There was a row of poplars, according to my recollection, Mr. Clarke had planted on his north line, which extended down to near the lake.

Q. And the territory was quite vacant between his house and the lake at that time?

A. Yes, sir.

Q. And how far north from that was it open, vacant prairies?

A. Down to the old homestead of Herrington's.

Q. From there on?

A. From there on I don't recollect hardly an improvement till we struck the Catholic church; might have been some others.

Q. You said the ground from Madison street down to Park row was kind of a common. Then this other territory was much the same, was it not?

A. Yes, sir.

Q. You would apply the same language to it as to the others, so far as you used the word common?

A. Yes, sir.

Q. There were no streets about Mr. Clarke's house, I take it, in any way, were there?

A. I don't know any except Michigan avenue. I think that was traveled with the prairie road at that time. There was then the prairie road and the lake-shore road.

Q. Do you know whether that was the Vincennes road?

A. I think that was the Vincennes road.

Q. Then, when you have said that the Clarke house fronted on Michigan avenue you mean it fronted on the Vincennes road?

A. Exactly, if that is the same. Really, Mr. Clarke's house fronted both streets.

Q. Was there any Michigan avenue down there at that time?

A. Not that I know of.

Q. No other road than the Vincennes road was there?

A. I think not.

By Mr. Ayer: Wasn't there a road where Michigan avenue is?

A. There was the lake shore road.

By Mr. McCagg: Wasn't that the lake shore road?

A. Now, it might have been the Vincennes road, and the road that passed Clarke's house meets the Vincennes road, which was the lake shore road that went along the foot of the sand hills.

Evidence before
Master.

By Mr. Ayer: 'One road east of the Clarke house and another west of it?

A. Yes, sir; the one west of Myrick's, too.

By Mr. McCagg: Where was the Vincennes road at that time, can you tell me?

A. I do not know.

Q. And how far from the Clarke house was the Vincennes road, can you tell me?

A. What I now call Michigan avenue is to the front of his house.

Q. Was there anything but a mere wagon track in front of his house?

A. That is all—wagon road.

Q. How—by what operation of mind or imagination do you locate that as Michigan avenue?

A. Simply by the present day; there has been a Michigan avenue for a good many years.

Q. But how long an interval of time between 1849 and the time that there was a Michigan avenue as far down as that?

A. Michigan avenue was then laid out. I think it was laid out and recorded.

Q. In 1840, 1841, and 1842?

A. Down there?

Q. Yes; as far as Clarke's house?

A. No; I think not as far as Clarke's house—that is, it was as far as Clarke's house. If it was not, it was a continuation of the road past the house that went on south.

Q. Your best recollection would be that it was laid out as far as Clarke's house?

A. I don't think the city limits then extended as far as Clarke's house; still it might. I think the road past Clarke's house went back of Myrick's.

Q. How far was the Clarke house from this road?

48c A. From the road that we traveled on the lake shore?

Q. That you called Michigan avenue?

A. But a few rods.

Q. That is very indefinite.

A. Perhaps it was 100 feet; that would be six rods.

Q. How long an interval of time between 1842 and the time when your attention was first called to this distance that you are speaking of?

A. Probably to-day.

Q. Is the same true in regard to the recollection of the point of ground you speak of as having been at or near 16th street as it is now laid out?

A. My attention having been called to it?

Q. Yes.

A. Within very recent times. There was a lake shore road that ran right along by these sand hills. After you passed the sand hills there was an opening there till you got perhaps to Ellis's, and below Myrick's you came to the oak timber instead of pine and cedar.

Q. You were here in the spring of 1847?

A. I was here in the spring of 1847.

Q. Was there not a row of buildings on the east side of Michigan avenue from Randolph street north at that time?

A. I think there was.

Q. Commencing at Randolph?

A. I think the first house was very near Randolph. I think it was Webster's house, and Fuller lived right there by Lake street, on the east side of Michigan avenue.

Q. Were not those houses within 100 feet of Randolph street?

A. I couldn't say; there were some houses there.

Q. Was there not substantially a block of houses on the east side of Michigan avenue, extending from Randolph street to Lake street, at that time?

A. The ground was covered with houses.

Q. Yes, sir; houses with intervals between them.

A. There were several there; that is my recollection.

Q. Did they not remain there continuously up to 1855 and 1856?

A. They remained there, if those were the houses. There were houses there when the Illinois Central Company came into possession of the grounds, in 1852.

Q. They remained there up to the time of the fire, did they not?

A. I think not. I think they were moved.

Q. Others put in their place?

A. I think so; that is my recollection.

Q. Large brick buildings put in their place prior to the fire?

A. Yes, sir.

Q. In view of your recollection in regard to the situation of affairs there at that time, will you say that the water came in at Randolph street close up to Michigan avenue?

Evidence before
Master.

A. When I came back from California in 1854; yes, sir; that is my recollection; that the water came down very near the junction of Michigan avenue and Randolph street.

481 Q. Now, you say very near. I understood you before as saying quite down to the junction. How near do you think, Mr. Holden?

A. Well, it is a matter that I can only state from the fact that these men cut ice there and hauled it to their ice-house, and my impression is that their piers or ice-wharves were very near Michigan avenue—that is, within 75 or 100 feet, and the skids run down into the water.

Q. You think there may have been a width of 75 or 100 feet at that time?

A. No; I don't think there was hardly any distance of ground at Michigan avenue; think it was nearly all washed out; but it was a slant, and by the time they reached the water it might have been down 70 or 100 feet.

Q. You think that is so, although you recollect there were those buildings along there at that time?

A. I don't say buildings on the corner. I say buildings on the east side of—

Q. Tell me, to the best of your judgment, how far from Randolph street there were buildings.

A. I can't say. I wouldn't pretend to say, because the buildings could not have cut any figure at the former time on our play-ground.

Q. Any houses at that time east of Michigan avenue?

A. What time?

Q. At the time—1842 and 1843?

A. What point?

Q. Anywhere between Park row and Randolph street.

A. None that I know of; never saw one that I know of.

Cross-examination by Mr. Bradley:

Q. I understood you to say that the waves come down the pier and carried destruction down to about 16th street?

A. Yes, sir.

Q. Do you mean since the Government breakwater has been erected or before?

A. Well, principally since. The destruction has been a great deal worse since the north and south breakwater.

Q. That time the river pier had been extended east a good way, had it not?

A. I think so.

Q. Then the destruction you speak of occurred after the river pier had been extended out east a good way into the lake?

A. Probably.

Q. You don't know how much until you came here to reside, did you?

A. Well, I have resided here a great while.

Q. But I think you said you did not notice the configuration of the shore much until you came here to reside?

A. Except down at 16th street and 18th street, at the sand hills on the lake shore.

482 Q. You of course don't know anything about any great storm previous to your coming here to reside.

A. Not previous to coming here.

Q. Only know by hearsay of that?

A. I don't speak of hearsay. I have spoken of—

Q. You don't know about any great storm previous to 1842 taking away a large amount of the lake shore personally?

A. No, sir; I don't know.

Q. Don't know of any accretions formed before you came here on the lake shore, personally, do you?

A. Not on the north side of them.

Q. South of Randolph street, any accretions south of Randolph street?

A. Never has been any.

Q. And the shore that you speak of as having been sometimes gradually washed away, sometimes torn away by the storms, may have been, for aught you know, accretion—that were made before you came here?

A. Appeared to take the solid ground, such as was there.

Q. Such as there was when you came here?

A. Yes, sir.

Q. Are you in the employ of the Illinois Central Railroad Company?

A. No, sir; I am not.

Q. Have you been employed by them in any capacity within the last eight or ten years?

A. I have not been employed by them since February 4, 1873, in any way, shape, or manner; never been on their pay-rolls to the extent of one mill; never had one cent of remuneration from them since February 4, 1873, to this moment.

Evidence before
Master.

Q. You have written some letters to the newspapers regarding this controversy?

A. Yes, sir.

Q. In which you have taken the side of the Illinois Central Railroad Company?

A. I have taken the side of the people.

Q. Haven't you taken the side of the Illinois Central in those letters to the newspapers?

A. No, sir; I have not. I have taken the side of common justice.

Q. Didn't you argue that the Illinois Central did a good deal for the people in building breakwaters?

A. I did, sir; and they have done it.

Q. Consequently the people ought to be pretty liberal to the Illinois Central Railroad Company?

A. I did, sir.

Cross-examination by Mr. McCagg:

Q. Have you had some experience in building piers?

A. I have not.

483 Q. If not building them yourself, in knowing of their being built, of their construction at one time and another along the lake shore?

A. Some little.

Q. While you were in the Illinois Central Company's office your attention must have been called to it?

A. Noticed it a good many times.

Q. Is it not a fact that whenever a pier has been extended out into the lake for a reasonable distance, 120 or 200 feet or less, that it has caused a wash around the end of it and on the shore south of it?

A. In a measure; but, Mr. McCagg, down opposite Douglas' grave I had a tax title to a half a mile, I think, of the shore a good many years ago; at that time east of the Illinois Central road there, caused by the piers being built out there or otherwise, there was quite an accretion of land. It seemed to be valuable. To-day it is every iota gone, and up to the very tracks of Mr. Ayer's railroad.

Q. That is just what I am getting at. Was not that because of the construction of large and more important piers north of it, which caused an impingement of the water upon the shore and took out what you had there?

A. The action of the water south of the Government

pier seems to be destructive in every form till you reach Hyde Park. You can't find any ground there to-day left on either side of these piers. It is actually so.

Evidence of
Master.

Q. Before the construction of this Government pier north and south didn't you have the same action, to a modified degree, whenever you put a pier out into the lake? Didn't you have the wash around it, which abraded the land below and very rapidly?

A. In a measure it seemed to do so in places south of what I have spoken of, since the erection of this north and south pier destruction has come in double portion.

An act in relation to a portion of the submerged lands and Lake part grounds, lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago.

Section 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, That all right, title and interest of the State of Illinois in and to so much of fractional section fifteen (15), township thirty-nine (39), range fourteen (14) east of the third (3) principal meridian, in the city of Chicago, county of Cook, and State of Illinois, as is situated east of Michigan avenue and north of Park row, and south of the south line of Monroe street, and west of a line running parallel with, and four hundred feet east of the west line of said Michigan avenue,—being a strip of land four hundred feet in width, including said avenue, along the shore of Lake Michigan, and partially submerged by the waters of said lake—are hereby granted, in fee, to the said city of Chicago, with full power and authority to sell and convey all of said tract east of said avenue, leaving said avenue ninety (90) feet in width, in such manner and upon such terms as the common council of said city may, by ordinance, provide: Provided, that no sale or conveyance of said property, or any part thereof, shall be

Grant to city of strip
of land 400 feet wide,
between Monroe street
and Park Row.

With power to sell.

Evidence before
Master.

Disposition of pro-
ceeds of sale.

Confirmation of right
of Illinois Central rail-
road under charter to
riparian rights and sub-
merged lands in sections
10 and 15.

Grant by State of all
submerged lands for a
distance of one mile
eastwardly and between
the south pier and lot 21,
near the Weldon shops.

valid unless the same be approved by a vote of not less than three-fourths of all the aldermen elect.

635 Sec. 2. The proceeds of the sale of any and all of said lands shall be set aside, and shall constitute a fund, to be designated as the "Park fund" of the said city of Chicago, and said fund shall be equitably distributed, by the common council, between the south division, the west division, and the north division of the said city, upon the basis of the assessed value of the taxable real estate of each of said divisions, and shall be applied to the purchase and improvement, in each of said divisions, or in the vicinity thereof, of a public park, or parks, and for no other purpose whatsoever.

Sec. 3. The right of the Illinois Central Railroad Company, under the grant from the State in its charter, which said grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent. of its gross earnings, and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands submerged or otherwise lying east of the said line running parallel with, and 400 feet east of the west line of Michigan avenue, in fractional sections ten (10) and fifteen (15), township and range as aforesaid, is hereby confirmed, and all the right and title of the State of Illinois, in and to the submerged lands constituting the bed of Lake Michigan, and lying east of the tracks and breakwater of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended eastwardly, and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of the said city of Chicago, are hereby granted, in fee, to the

said Illinois Central Railroad Company, its successors and assigns: Provided, however, that the fee to said lands shall be held by said company in perpetuity, and that the said company shall not have power to grant, sell or convey the fee to the same; and that all gross receipts from use, profits, leases or otherwise of said lands, or the improvements thereon, or that may hereafter be made thereon, shall form a part of the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall

forever pay into the State treasury, semi-annually, the per centum provided for in its charter, in accordance with the requirements of said charter: And provided, also, that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation: nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns, from any act of the General Assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor: And provided, further, that any of the lands hereby granted to the Illinois Central Railroad Company, and the improvements now, or which may hereafter be on the same, which shall hereafter be leased by said Illinois Central Railroad Company to any person or corporation, or which may hereafter be occupied by any person or corporation other than said Illinois Central Railroad Company, shall not, during the continuance of such leasehold estate, or of such occupancy, be exempt from municipal or other taxation.

Sec. 4. All the right and title of the State of Illinois, in and to the lands, submerged or otherwise, lying north of the south line of Monroe street, and south of the south line of Randolph street, and between the east line of Michigan avenue, and the track and roadway of the Illinois Central Railroad Company, and

Evidence before Master.

Company not to have power to sell or convey same.

Rents to form part of income of company, on which percentage to be paid the State.

Chicago harbor not to be obstructed.

Any of the lands leased by Illinois Central railroad shall not be exempt from taxation.

Grant of three blocks to Illinois Central Railroad, Chicago, Burlington & Quincy railroad, and Michigan Central railroad for depot

Evidence before
Master.

constituting parts of fractional sections ten (10) and fifteen (15) in said township thirty-nine (39), as aforesaid, are hereby granted, in fee, to the Illinois Central Railroad Company, the Chicago, Burlington & Quincy Railroad Company, and the Michigan Central Railroad Company, their successors and assigns, for the erection thereon of a passenger depot, and for such other purposes as the business of said company may require: Provided, That upon all gross receipts of the Central Railroad Company, from leases of its interest in said grounds, or improvements thereon, or other uses of the same, the per centum provided for in the charter of said company shall forever be paid, in conformity with the requirements of said charter.

For which they are to
pay city of Chicago
\$800,000.

Sec. 5. In consideration of the grant to the said Illinois Central, Chicago, Burlington & Quincy, and Michigan Central Railroad Companies of the land as aforesaid, said companies are hereby required to pay to said city of Chicago the sum of eight hundred thousand dollars, to be paid in the following
637 manner, viz: Two hundred thousand dollars within three months from and after the passage of this act; two hundred thousand dollars within six months from and after the passage of this act; two hundred thousand dollars within nine months from and after the passage of this act; two hundred thousand dollars within twelve months from and after the passage of this act; which said sums shall be placed in the park fund of the said city of Chicago, and shall be distributed in like manner as hereinbefore provided for the distribution of the other funds which may be obtained by said city from the sale of the lands conveyed to it by this act.

Common council au-
thorized to convey to the
three companies.

Sec. 6. The common council of the said city of Chicago is hereby authorized and empowered to quitclaim and release to the said Illinois Central Railroad Company, the Chicago, Burlington & Quincy Railroad Com-

pany, and the Michigan Central Railroad Company, any and all claim and interest in and upon any and all of said land north of the south line of Monroe street, as aforesaid, which the said city may have by virtue of any expenditures and improvements thereon or otherwise, and in case the said common council shall neglect or refuse thus to quit-claim and release to the said companies, as aforesaid, within four months from and after the passage of this act, then the said companies shall be discharged from all obligation to pay the balance remaining unpaid to said city.

Sec. 7. The grants to the Illinois Central Railroad Company contained in this act are hereby declared to be upon the express condition that said Illinois Central Railroad Company shall perpetually pay into the treasury of the State of Illinois the per centum on the gross or total proceeds, receipts or income derived from said road and branches stipulated in its charter, and also the per centum on the gross receipts of said company reserved in this act.

Sec. 8. This act shall be a public act and in force from and after its passage.

Passed over veto, 16th April, 1869.

Grants to Illinois Central railroad herein continued are on condition that they perpetually pay percentage on receipts to the State.

Evidence before Master.

Acceptance by the Illinois Central Railroad Company of Act of 1869.

At a meeting of the board of directors of the Illinois Central Railroad Company held at the company's office, in New York, the 6th day of July, 1870, the following resolution (inter alia) was passed:

"Resolved, That this company accepts the grants under the act of the legislature of Illinois at its last session, and
638 that the President give notice thereof to the State, and
that the company has commenced work upon the shore of the lake at Chicago under the grants referred to."

Evidence before
Master.

Chicago, November 17, 1870.

Hon. Edward Rummel, secretary of the State of Illinois,
Springfield, Ill.

Sir: At a meeting of the board of directors of the Illinois Central Railroad Company, held at the company's office, in New York, the sixth day of July, 1870, it was resolved:

"That this company accepts the grants under the acts of the legislature of Illinois at its last session, and that the president give notice thereof to the State, and that the company has commenced work upon the shore of the lake at Chicago under the grants referred to."

In accordance with the above resolution I hereby give you notice that this company accepts the grants above referred to and more particularly mentioned and described in an act in force April 16th. A. D. 1869, and entitled "An act in relation to a portion of the submerged lands and Lake Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago."

And I also give you notice that this company has commenced work on the improvement of said lake shore.

You will please regard the above as an acceptance by this company of the above mentioned law, and it is desired by said company that said acceptance shall remain permanently on file and of record in your office.

Please acknowledge receipt hereof and oblige,

Yours very truly, JOHN DOUGLAS, President.

State of Illinois, Secretary's Office.

Springfield, Nov. 18th, 1870.

Hon. John M. Douglas, pres. Ill. Central R. R., Chicago, Ills.

Dear Sir: Yours of the 17th inst., being a notice of the acceptance by the Ill. Central R. R. Co. of the grants under an act of the legislature of Illinois in force April 16th, 1869, was this day received and filed and duly recorded in the records of this office.

Very respectfully,

EDWARD RUMMEL,
Secretary of State.

Act of Illinois legislature, Apr. 15, 1873. In force July 1,
609 1873.

(Sess. Laws 1873, p. 115.)

An act to repeal an act entitled "An act in relation to a portion of the submerged lands and Lake park grounds, lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," in force April 16, 1869.

Section 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, That the act entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," in force April 16, 1869, be and the same is hereby repealed.

Act of Illinois legislature April 28, 1882.

611 Session Laws 1882, p. 12.

An act to incorporate the Illinois Central Railroad Company.

Approved 10th February, 1851.

Whereas, in the judgement of this General Assembly, the object of incorporating the Central Railroad Company cannot be attained under general laws: Therefore,

Section 1. Be it enacted by the people of the State of Illinois represented in the General Assembly, That Robert Schuyler, George Griswold, Gouverneur Morris, Franklin Haven, David A. Neal, Robert Rantoul, Junior, Jonathan Sturges, George W. Ludlow, John F. A. Sandford, Henry Grinnell, William H. Aspinwall, Leroy Wiley, and Joseph W. Alsop, and all such persons as shall hereafter become stockholders in the company hereby incorporated, shall
612 be a body politic and corporate by the name and style of the "Illinois Central Railroad Company;" and under

Evidence before
Master.

that name and style, shall be capable of suing and being sued, impleading and being impleaded, defending and being defended against, in law and equity, in all courts and places whatsoever, in like manner and as fully as natural persons; may make and use a common seal, and alter or renew the same at pleasure; and by their said corporate name and style, shall be capable in law, of contracting and being contracted with, shall be and are hereby invested with all the powers, privileges, immunities and franchises, and of acquiring by purchase or otherwise, and of holding and conveying real and personal estate, which may be needful to carry into effect fully the purposes and objects of this act.

Sec. 2. The said corporation is hereby authorized and empowered to survey, locate, construct, complete, alter, maintain and operate a railroad with one or more tracks or lines of rails, from the southern terminus of the Illinois and Michigan canal, to a point at the city of Cairo, with a branch of the same to the city of Chicago, on Lake Michigan; and also a branch, via the city of Galena, to a point on the Mississippi river, opposite the town of Dubuque, in the State of Iowa.

Sec. 3. The said corporation shall have the right of way upon, and may appropriate to its sole use and control, for the purposes contemplated herein, land not exceeding two hundred feet in width through its entire length; may enter upon and take possession of, and use all and singular any lands, streams and materials of every kind, for the location of depots and stopping stages, for the purpose of constructing bridges, dams, embankments, excavations, station grounds, spoil banks, turnouts, engine-houses, shops and other buildings necessary for the construction, completing, altering, maintaining, preserving and complete operation of said road. All such lands, waters, materials and privileges belonging to the State, are hereby granted to said corporation for said purposes; but when owned or belonging to any person, company or corporation, and cannot be obtained by voluntary grant or release, the same may be taken and paid for, if any damages are awarded, in the manner provided in "An act to provide for a general system of railroad incorporations," approved November 5th, 1849; and the final decision or award shall vest in the corporation hereby created all the rights, franchises and immunities, in said act contemplated

and provided: Provided, that the appeal allowed by the provisions of the aforesaid act, approved the 5th of November, 1849, shall not affect the possession, by such company, of the land appraised, and when the appeal is made by others than the company, the same shall not be allowed, except on stipulation of the party appealing that the said company may enter upon and use the lands described in the petition, for the uses and purposes in said petition set forth, upon said company giving bond and security, to be approved by the clerk of said court, that they will pay all costs and damages that may be awarded against said company on the hearing of said appeal: Provided that nothing in this section
613 tained shall be so construed as to authorize the said corporation to interrupt the navigation of said streams.

Evidence before
Master.

Sec. 4. The capital stock of said corporation shall be one million of dollars, which may be increased, from time to time, to any sum not exceeding the entire amount expended on account of said road, divided into shares of one hundred dollars each, which shall be deemed personal property, and may be issued and transferred in such manner and at such places, as may be ordered and provided by the board of directors, who shall have power to require the payment of sums subscribed by stockholders, in such manner and on such terms as they may deem proper; and on refusal or neglect, on the part of stockholders, or any of them, to make payments on the requisition of the board of directors, the shares of such delinquents may, after thirty days' public notice, be sold at public auction, under such rules as said board of directors may adopt—the surplus money, if any remains, after deducting the payments due, with the interest and the necessary costs of sales, to be paid to such delinquent stockholders. The board of directors hereby appointed shall cause books to be opened for subscriptions to said stock, in such manner and at such time and places as they shall direct.

Sec. 5. All the corporate powers of said company shall be vested in and be exercised by a board of directors, and such officers and agents, as they shall appoint. The board of directors shall consist of not less than twelve stockholders—three of whom shall be chosen every year by the stockholders—each share having one vote, to be given in person or by proxy—and the governor of the State of Illinois, who shall be a director, ex officio, perpetually, voting in person

Evidence before
Master.

or by proxy; each director, successively elected, to continue in office until his successor is elected and qualified. Vacancies in the board may be filled by a vote of two-thirds of the directors remaining; such appointees, to continue in office until the next regular election of directors; but no person shall be so elected who shall not have been openly nominated at a meeting of the directors, at least one week before the time appointed for such election. Other officers, agents and servants, whether members of the board, or otherwise, may be appointed, employed, paid and dismissed, under such rules and regulations as the board of directors may, from time to time, adopt.

Sec. 6. The following-named persons shall constitute the first board of directors, to wit: Robert Schuyler, George Griswold, Gouverneur Morris, Franklin Haven, David A. Neal, Robert Rantoul, Jr., Jonathan Sturges, George W. Ludlow, John F. A. Sandford, Henry Grinnell, Joseph W. Alsop, Leroy Wiley, with the governor of the State of Illinois, for the time being, whose powers shall commence and be in full force from and after the day this act shall be accepted, in the manner herein provided.

Sec. 7. The president and directors, for the time being, are hereby authorized and empowered, by themselves, their officers or agents, to execute all the power herein granted, for the purpose of surveying, locating, constructing, completing, altering, maintaining and operating said road and branches; and for the transportation upon the same of
614 persons, goods, wares and merchandise, with all such powers and authority of control and management of the affairs of said company, as may be necessary and proper to carry into full and complete effect the meaning and intent of this act.

Sec. 8. The said company shall have power to make, ordain and establish all such by-laws, rules and regulations as may be deemed expedient and necessary to fulfill the purposes and carry into effect the provisions of this act, and for the well ordering, regulating and securing the affairs, business and interests of the company: Provided, that the same be not repugnant to the constitution and laws of the United States, or of this State, or repugnant to this act. The board of directors shall have power to establish such rates of toll

for the conveyance of persons and property upon the same as they shall, from time to time, by their by-laws, direct and determine, and to levy and collect the same for the use of the said company. The transportation of persons and property; the width of track; the construction of wheels; the form and size of cars; the weight of loads; and all other matters and things respecting the use of said road, and the conveyance of passengers and property shall be in conformity to such rules and regulations as such board of directors shall from time to time determine. Nothing in this act contained shall authorize said corporation to make a location of their track within any city without the consent of the common council of said city.

Evidence
Master.

Sec. 9. If any person shall carelessly, wilfully, maliciously, or wantonly delay, hinder or obstruct the passage of any carriage on said road or branches, or shall place, or cause to be placed, any material thereon, or in any way trespass upon, spoil, injure or destroy said road or branches, or any part thereof, or anything belonging or pertaining thereto, or employed or used in connection with its location, survey, construction, or management, all persons committing, or aiding and abetting in the commission of such trespass, or offence, shall forfeit and pay to the said company treble such damages as shall be proved before any court of competent jurisdiction; and further, such offenders shall be liable to indictment in the county within whose jurisdiction the offence may be committed, and to pay a fine of not less than thirty, nor more than one hundred dollars, to the use of the people of the State of Illinois, or may be imprisoned in the penitentiary for a term not exceeding five years, in the discretion of the court before whom the same shall be tried.

Sec. 10. Said corporation may construct their said road and branches over or across any stream of water, water-course, road, highway, railroad or canal which the route of its said road shall intersect, but the corporation shall restore the stream or water-course, road or highway, thus intersected, to its former state, or in a sufficient manner not to have impaired its usefulness. Whenever the track of said railroad shall cross a road or highway, such road or highway may be carried under or over said track, as may be found most expedient; and in case where an embankment or cutting shall make a change in the line of such road or highway de-

Evidence before
Master

615 sirable with a view to a more easy ascent or descent, the said company may take such additional lands for the construction of such roads or highway as may be deemed requisite by said corporation, unless the lands so taken shall be purchased or voluntarily given for the purposes aforesaid. Compensation therefor shall be ascertained in the manner in this act provided, as nearly as may be, and duly made by said corporation to the owners and persons interested in such lands. The same when so taken or compensation made, to become a part of such intersecting road or highway, in such manner and by such tenure as the adjacent parts of the same highway may be held for highway purposes.

Sec. 11. And when the route of the said road, or either of its branches, as provided in this act shall intersect, cross, or connect with, or run along or upon the line of any other railroad now constructing, or now in process of construction by any other company, the company to be formed under this act shall join with such other company in making all necessary turn-outs, sidings and switches, and other conveniences necessary to further the objects of such connection; and when the route of any other company shall be occupied as aforesaid, just compensation shall be made to such other company for all expenditures made by them, in the location of such road; and all railroads so constructed, or now in process of construction, intersected as aforesaid and connections made with the roads authorized to be built by this act, shall be made, and the facilities in the transshipment of freight and passengers, and interchange of cars afforded by each, over the respective roads, upon fair and equitable terms, and in case the said companies cannot agree upon the amount of compensation to be made therefor, or the points and manner of such crossings, and connections, the transshipment of freight and passengers, and interchange of cars, the same shall be ascertained and determined by three commissioners, one to be chosen by each of said companies, and the two so chosen to choose a third, and in case they cannot agree upon the choice of a third person, he shall be appointed by the judge of the district court of the United States for the district of Illinois, and the decision of the three, when so chosen, shall be final: Provided, that this corporation shall not take and run on the road or line of any such company which is now being constructed without the consent and agreement of the company whose road or line is proposed so to be used.

Sec. 12. Every conductor, baggage master, engineer, brakeman, or other servant of said corporation employed in a passenger train, or at stations for passengers, shall wear upon his hat or cap a badge which shall indicate his office, the initial letters or style of the corporation. No conductor or collector, without such badge, shall demand or be entitled to receive from any passenger any fare, toll or ticket, or exercise any of the powers of his office, and no other of said officers, or servants, without such badge, shall have any authority to meddle or interfere with any passenger, his baggage or property. In forming passenger trains, baggage, or freight, or merchandise, or lumber cars shall not be placed rear of passenger cars; and if they, or any of them, shall be so placed, and any accident shall happen to life or limb, the officer or agent who so directed or knowingly suffered such arrangement, and the conductor or engineer of the train, shall each and all be held guilty of a misdemeanor, and punished accordingly.

Evidence of
Master.

Sec. 13. A bell of at least thirty pounds weight, or a steam whistle, shall be placed on each locomotive engine, and shall be rung or whistled at the distance of at least eighty rods from the place where the said road shall cross any other road or street, and be kept ringing or whistling at intervals until it shall have crossed said road or street, under a penalty of fifty dollars for every neglect, to be paid by said corporation, one-half thereof to go to the informer, and the other half to the State, and to be liable for all damages which shall be sustained by any person by reason of such neglect. Said corporation shall cause boards to be placed, well supported by posts or otherwise, and constantly maintained across each public road or street, where the same is crossed by the railroad, on such elevation as not to obstruct the travel, and to be easily seen by travelers, and on each side of said board shall be painted in capital letters, of at least the size of nine inches each, the words "Railroad crossing! Look out for the cars." But this provision shall not apply to streets, or cities, or villages, unless the corporation be required to put up such boards by the officers having charge of such streets.

Sec. 14. Said corporation shall, within a reasonable time after said road and branches shall have been located, cause to be made a map and profile thereof, and of the land taken

Evidence before
Master.

and obtained for the use of such road and branches, and file the same in the office of the secretary of state, and also like maps of the parts thereof located in the different counties through which the same may pass, and cause the same to be recorded in the office for recording deeds in the county in which said parts of said road and branches shall lie.

Sec. 15. For the purpose of securing the construction of said road and branches, the right of way, and all the lands which may be selected along the lines of said road and branches, within this State, under the grant made by the Government of the United States to the State of Illinois, by virtue of "An act granting the right of way, and making a grant of land to the States of Illinois, Mississippi and Alabama, in aid of the construction of a railroad from Chicago to Mobile," passed September twentieth (20), eighteen hundred and fifty (1850); and also the right of way which the State of Illinois has heretofore obtained along and on the line of said railroad and branches, as heretofore located and surveyed, for the uses of the same, as well as the lot of ground obtained by the State within the city of Cairo, for a depot, and all the grading, embankments, excavations, surveys, work, materials, personal property, profiles, plats and papers, constructed, procured, furnished and done by or in behalf of the State of Illinois, for or on account of said road and branches, also the right of way over and through lands owned by the State, are hereby ceded and granted to said corporation, for the only and sole purpose of surveying, locating, constructing, completing, altering, maintaining and operating said road
617 and branches, as in this act provided, and in the manner following—that is to say: Immediately upon the organization of said company, and the presentation to the governor of the State of Illinois, of a certificate, signed by the corporators hereinbefore named, and duly acknowledged, accepting of this act of incorporation, and certifying to the due organization of said corporation, to the subscription to the capital stock thereof by the corporators hereinbefore named, and their associates, of the sum of one million of dollars, and the bona fide payment of twenty per cent. thereon to the treasurer of said company, verified by the affidavits of the president and treasurer of said company (which said certificate shall be filed in the office of the secretary of state); and after three hundred thousand dollars of registered canal

bonds, or funded internal improvement bonds of the State of Illinois, or two hundred thousand dollars in specie, or two hundred thousand dollars of six per cent. United States stock shall have been by said corporation deposited with the treasurer of the State of Illinois, which shall be safely preserved and kept in the treasury of said State, upon the faith of the same, to be returned to or paid over to said corporation upon the full completion and operation of fifty miles of said railroad by the said corporation, according to the provisions of their said charter, the said governor of the State of Illinois shall, in his official capacity, and in behalf of the State of Illinois, and under the great seal thereof, execute and deliver to the said company a deed, in fee simple, of all said lands granted by the Government of the United States, under the act of Congress aforesaid, said depot lot at Cairo, right of way, grading, embankments, excavations, surveys, work, materials, profiles, plats and papers, hereinafter described and set forth, or in any way appertaining to said road and branches: Provided, that said company shall simultaneously with the execution of said deed by said governor, execute a deed of trust to the persons and for the purposes hereinafter named and expressed. And provided further, that the deed, in fee simple, to be executed by the governor as aforesaid, shall recite, at full length, the act of Congress aforesaid, this act and the deed of trust aforesaid. Said deed of trust shall be executed to Morris Ketchum, John Moore and Samuel D. Lockwood, as trustees, and shall include and convey to said trustees and their successors everything included and conveyed in and by said deed, in fee simple, and in addition thereto, the railroad or railroads which may be built upon or along said track or tracks, line or lines, and materials for the construction thereof, with all and singular the buildings, shops, engine-houses, turn-outs, stations and real estate of every nature and description belonging, or to belong to, or in anywise appertaining, or to appertain to said road and branches, for the uses, trusts and purposes following, that is to say:

Evidence
Master.

First. To secure and guarantee to the State of Illinois the first and prior lien on everything conveyed by said deed of trust, of every name, character and description, for security, as follows: Firstly, the constructing, completing and finishing said road and branches, in the manner and time, and upon conditions in this act provided. Secondly, for the faithful application of all money or property arising from

Evidence before
Master.

the sale of lands, or obtained upon the faith of the same, as hereafter authorized, to the constructing, completing, equipping and furnishing said road and branches, in accordance with the terms of this act and said act of Congress. Thirdly, the indemnification of the State of Illinois against all and every claim of the United States Government, for proceeds of sale of lands made by said company, under the provisions of this act, in the event said roads and branches shall not be completed, as required by the act of Congress above referred to. Fourthly, the lien hereby created shall take and have precedence of all demands, incumbrances, mortgages, bonds, judgments and decrees, against said corporation, or said property, except so far as the absolute power of selling said lands, or any portion thereof is herein provided for: Provided, that in case fifty miles of the said road shall not be constructed, according to the provisions of this act, within two years from and after the date of the organization of the company under the same, the bonds or money herein provided to be deposited with the treasurer of the State of Illinois, shall become forfeited to and become the property of the said State, subject to the disposition of the legislature thereof.

Second. That on its organization said company may enter upon, take and receive possession of the said tracks or lines, for the purpose of surveying, locating, working and constructing said road and branches, with the right of way, land, grading, embankments, excavations, surveys, work, materials, property, profiles, plats and papers aforesaid, to be occupied, used and employed for the purposes contemplated by this act, under whosoever control the same may be.

Third. That said company shall proceed to locate, survey and lay out, construct and complete said road and branches, through the entire length thereof—the main trunk thereof, or central line, to run from the city of Cairo to the southern termination of the Illinois and Michigan canal, passing not more than five miles from the northeast corner of township twenty-one north, range two east of the third principal meridian, and nowhere departing more than seventeen miles from a straight line between said city of Cairo and said southern termination of said canal, with a branch running from the last-mentioned point, upon the most eligible route, to the city of Galena; thence to a point on the Mississippi river

opposite the city of Dubuque, in the State of Iowa; with a branch also diverging from the main track, at a point not north of the parallel of thirty-nine and a half degrees north latitude, and running on the most eligible route into the city of Chicago, on Lake Michigan. That the central road or main track shall be completed, with at least one line of rails, or single track, with the necessary turn-outs, stations, equipments and furnishings, within four years from the date of the execution of said deed of trust, and the branches within six years from the said date—said roads to be made equal, in all respects, to the road leading from Boston to Albany, usually known as the Great Western Railway, with such improvements as experience shall have shown to be expedient:—the central or main line to be first commenced, and be continued to completion.

Evidence
Master.

Fourth. A portion of said lands so conveyed to said trustees, not exceeding one-fourth part thereof in value, to be designated by said company, shall be held by said trustees free from all incumbrances for purposes of sale, from time to time, on the requisition of said company, for the purpose of raising funds for the payment of interest on loans, in case of deficiency from other sources, and for such expenditures as the exigencies of the business of the company may require: Provided, that no portion of said fourth part of said lands shall be sold until said road and branches shall have been surveyed and located, and the work actually commenced on the main road: Provided further, that no portion of said lands so held by the said trustees, free from all incumbrance for said purposes, shall be sold or offered for sale, until the said trustee shall be satisfied that a sum of money has been actually expended upon the construction of a section of at least fifty miles of said road, adjacent to said lands, equal in amount to the sum of money to be raised from the sale of such portion of said lands, or until a section of at least fifty miles of said road adjacent to said lands, shall have been completed—when the lands on said section will be sold—and so on till the said road and branches shall be complete.

Fifth. For the purpose of raising funds from time to time, for the construction and completion of said road and branches, and the purchase of iron and other materials to be used thereon, said company may issue its bonds, countersigned by the said trustees, in sums of not less than five hundred,

Evidence before
Master.

nor more than one thousand dollars each, at rates of interest not higher than seven per cent. per annum, payable semi-annually; the principal of said bonds payable in the year one thousand eight hundred and seventy-five, or sooner, at the pleasure of the company, at such place as it shall designate. The payment of said bonds shall be secured by the deed of trust aforesaid of said lands, roads and materials, as hereinbefore provided; subject, nevertheless, to the prior lien of the State upon said lands and property hereinbefore provided for; which said prior lien shall be referred to and recited in said bonds so to be issued by said company: Provided, that the faith of the State is in nowise pledged for the redemption of said bonds to any extent.

Sec. 16. When the said company shall have completed and put in running order fifty miles of said road, the said trustees, on the requisition of said company, may proceed to sell the lands lying along and adjacent to such section so completed (and not reserved free from all incumbrance as aforesaid), in such manner as the company may direct. Said lands shall be sold for cash in hand, or the bonds of said company at par. All bonds, received on such sales shall be canceled by said trustees and delivered to said company. The trustees shall invest all moneys received on such sales in the bonds of the company which shall be, in like manner, canceled and returned. On canceling said bonds, and before returning them to the company, said trustees shall make a

brief memorandum on each bond, specifying for or on
620 what particular tract or tracts of land the same was received. On making such sales, and receiving the price of such lands in money or bonds as aforesaid, said trustees shall convey such tracts, by an absolute title, in fee simple to the purchasers; which conveyance shall operate as a release, or an acquittance, of the particular tract, or tracts, so sold, from all liability or incumbrance on account of said deed of trust and the issue of said bonds, so specified in the preceding section, so as to vest in the purchasers a complete and indefeasible title. Before any sales shall be made of any of said lands, the said trustees shall make a complete record, describing each and every tract of land selected under said act of Congress, a copy of which record shall be filed in the office of the auditor of this State, and as sales of land are made, as provided herein, from time to time, the said trustees shall make and keep a record as aforesaid of every and each

tract of land so sold, together with the name of the person to whom, and the price for which, the same was sold; a copy of which record of sales shall be filed in said auditor's office semi-annually.

Evidence
Master.

Sec. 17. The trustees shall not at any time during the construction of said road and branches, sell or dispose of lands to an amount exceeding the sum which shall then have actually been expended upon the said work, but may, at the request of the company, sell as the work progresses, so as to meet expenditures actually made on the sections of road completed, as far as the receipts from said sales may go towards their liquidation. And all lands remaining unsold at the expiration of ten years after the completion of said road and branches, shall be offered at public sale, annually, until the whole is disposed of, and the avails applied to the payment of the outstanding bonds of the company as aforesaid; or, if no such bonds be outstanding, said avails shall be paid to said company.

Sec. 18. In consideration of the grants, privileges and franchises herein conferred upon said company, for the purposes aforesaid, the said company shall, on the first Mondays of December and June, in each year, pay into the treasury of the State of Illinois, five per centum on the gross or total proceeds, receipts or income derived from said road and branches, for the six months then next preceding. The first payment of such percentage on the main trunk of said road to commence four years from the date of said deed of trust, and on the branches six years from the date aforesaid, unless said road and branches are sooner completed, then from the date of completion. And for the purpose of ascertaining the proceeds, receipts, or income aforesaid, an accurate account shall be kept by said company, a copy whereof shall be furnished to the governor of the State of Illinois, the truth of which account shall be verified by the affidavits of the treasurer and secretary of such company. And for the purpose of verifying and ascertaining the accuracy of such account, full power is hereby vested in the governor of the State of Illinois, or any other person by law appointed, to examine the books and papers of said corporation, and to examine, under oath, the officers, agents, and employes of said company, and other persons. And if any person so examined by the governor, or other authority, shall knowingly and willfully swear falsely, or if the officers making

Evidence before
Muster.

such affidavits, shall knowingly and willfully swear falsely, every such person shall be subject to the pains and penalties of perjury.

Sec. 19. The selection of lands provided for in the act of Congress making the grant hereinbefore specified, shall be made by said company, or such agents as it may designate, under the appointment of the governor of this State, subject to the approval in said act specified. Said selection, as well as the survey, location and completion of said road and branches, and the compensation of such trustees, shall be at the cost and charge of said company, without charge of any kind upon the treasury of the State of Illinois. Said road and branches to be free for the use of the United States, and to be employed by the Post Office Department, as provided in said act of Congress.

Sec. 20. In case of the death, resignation, removal, or inability to act, of either or all of said trustees, the vacancy or vacancies, shall be filled by the governor of the State of Illinois, and said company, alternately; the governor filling the first vacancy that may occur.

Sec. 21. The corporate authorities of any city, or cities, on the line of said road or branches, or at either terminus thereof, or any owner, or owners, of property in any such city, or any association of citizens, duly authorized by any such corporation, shall have power to lay down or construct a track, or railroad, along any of the streets of any such cities, for the purpose of conveying property to and from said railroad which may be consigned to any of the warehousemen in any of the said cities; that said track, or railroad (under the direction of said company) may intersect the track of said railroad company at or near the main depot, in said cities respectively; and said company shall, at all times, permit the owners, or consignees, of property, in such cities, to take the cars containing the property to them consigned, to their respective warehouses upon said track: Provided, that any car so taken, shall be returned without any unnecessary delay: And provided further, that whenever it shall be necessary, for the convenience of the public, or persons receiving or sending property by said railroad, the said company shall permit side tracks to intersect their main road at any depot on or along the line of said road; and that such persons shall

be entitled to have any property taken from such side tracks, under the directions and regulations of said company, without unreasonable delay; and for the non-performance by said company of any act of this proviso required to be done, said company shall forfeit and pay to the party aggrieved the sum of fifty dollars in each case, to be recovered in an action of debt, before any justice of the peace, or any court having jurisdiction thereof.

Evidence
Master.

Sec. 22. The lands selected under said act of Congress, and hereby authorized to be conveyed, shall be exempt from all taxation under the laws of this State, until sold and conveyed by said corporation or trustees, and the other stock, property, and effects of said company shall be in like manner exempt from taxation for the term of six years from the passage of this act. After the expiration of said six years, the stock, property and assets belonging to said company shall be listed by the president, secretary or other proper officer, with the auditor of State, and an annual tax for State purposes shall be assessed by the auditor upon all the property and assets of every name, kind and description belonging to said corporation. Whenever the taxes levied for State purposes shall exceed three-fourths of one per centum per annum, such excess shall be deducted from the gross proceeds or income herein required to be paid by said corporation to the State, and the said corporation is hereby exempted from all taxation of every kind, except as herein provided for. The revenue arising from said taxation and the said five per cent. of gross or total proceeds, receipts or income aforesaid, shall be paid into the State treasury, in money, and applied to the payment of interest-paying State indebtedness, until the extinction thereof: Provided, in case the five per cent. provided to be paid into the State treasury, and the State taxes to be paid by the corporation, do not amount to seven per cent. of the gross or total proceeds, receipts or income, then the said company shall pay into the State treasury the difference, so as to make the whole amount paid equal at least to seven per cent. of the gross receipts of said corporation.

Sec. 23. This act, and all grants herein contained, shall cease and be void, unless accepted by said company within sixty days after the passage of this act; and immediately on such acceptance, made in the manner above provided, the

Evidence before
Master.

deed in fee simple, and the deed of trust aforesaid, shall be made as above provided. All the grants herein contained shall cease and be void, unless said road and branches be surveyed and located, and work on the main trunk actually begun before the first day of January, 1852.

Sec. 24. The State shall have a prior lien upon said road and branches, and all the appurtenances and stock thereof, for all penalties, taxes and dues which may accrue to the State from said corporation, as herein provided; which lien of the State shall take precedence of all demands, judgments or decrees against said corporation.

Sec. 25. That each and every person, who on the twentieth day of September, one thousand eight hundred and fifty, was the owner of any improvements made previous to that date, on any lot of land conveyed to the said company, and who became such owner with a view to a residence on, or occupation of, such lot of land for agricultural purposes, shall have the right to purchase, at not exceeding two dollars and fifty cents per acre, a quantity of the lot so owned, to be bounded by the legal subdivisions, not exceeding one quarter section, to consist of the quarter-quarter, half-quarter, or quarter section, which will include the improvements aforesaid: Provided, that any person claiming the right of purchase, under the provisions of this act, shall, within three months from the date of selecting the lands, file in the clerk's office of the circuit court of the county in which the land claimed is situated, a notice to the said trustees and corporation of his, her, or their claims, describing the land by its numbers, accompanied with an affidavit stating the date 623 and object of the improvement, the time and manner when and how he, she or they became the owner thereof, and also the affidavits of at least two residents of the county, proving the facts in relation to such claims: And, provided further, that the right of way upon and across any lot of land sold under the provisions of this section, not exceeding two hundred feet in width, shall be reserved and retained for the passage of the road, as the same may be located and constructed, and any person claiming the right to purchase as aforesaid, shall, within twelve months from the date of commencing the work on the road within the county in which the land is situated, pay the said trustees, or the corporation, the consideration money for the land claimed;

which payment shall entitle him, her or them to a deed conveying an estate in fee; but, in case of failure to make such payment, the right to make the purchase shall cease. When two or more persons claim the right to purchase the same lot of land, and file the proof of ownership as herein required, the person proving the first residence, by himself, or those under whom he claims the improvement, shall have the right to make the purchase, but no sale or conveyance of any lot of land under the provisions of this section, shall affect the rights or equities of parties claiming the same, as between each other.

Evidence before
Master.

Sec. 26. In case the persons incorporated by this act shall fail or neglect to accept the provisions of the same, and comply with its conditions within the time, and in the manner herein prescribed, then the same may be accepted by any other company which shall be approved by the governor, auditor and treasurer of this State, who, upon complying with the terms and conditions of this act, shall be vested with all the rights, powers and immunities conferred upon the corporators herein named, and shall be subject to all the liabilities in the said act set forth, in as full, ample and complete a manner as if their names were inserted as corporators in this act.

Sec. 27. This act shall be deemed a public act, and shall be favorably construed for all purposes therein expressed, and declared, in all courts and places whatsoever, and shall be in force from and after its passage.

Evidence before
Master.

Ordinance, Granting Right of Way into the City of Chicago,
to Illinois Central Railroad Co.

(Ordinance adopted 14 June, 1852.)

(Agreement dated 28 March, 1853.)

Agreement between the common council of the city of Chi-
cago and the Illinois Central Railroad Company.

To all to whom these presents shall come, Greeting:

Recites passing of or-
dinance of 14 June,
1852.

Whereas, the common council of the city of
Chicago, in the State of Illinois, under and by
authority conferred by the laws of said State
and the charter of said city, did, on the
624 fourteenth day of June, in the year of
our Lord one thousand eight hundred
and fifty-two, pass and adopt in due and legal
manner and form, "An ordinance concerning
the Illinois Central railroad" in the words and
figures hereinafter set forth or mentioned, as
by reference to said ordinance or a copy there-
of hereinafter contained, reference being had
thereto, will more fully and at large appear.

And proceedings of I.
C. R. R. board accept-
ing same.

And whereas, at a meeting of the board of
directors of the said Illinois Central Railroad
Company, held at the office of said company
in the city of New York, on the second day
of September, in the year of our Lord one
thousand eight hundred and fifty-two, in ac-
cordance with the several provisions of the
charter and by-laws of said company, the fol-
lowing proceedings were had, as appears by
reference to the records of said company kept
at their said office, that is to say:

"The president submitted a certified copy
of the resolution of the common council of
Chicago, passed on the 14th day of June,
1852, granting permission to the Illinois Cen-
tral Railroad Company to lay down, construct
and maintain within the limits of the city of
Chicago, and along the margin of the lake
within and adjacent to the same, a railroad,

with one or more tracks, and to operate the same with locomotive engines and cars, under certain rules and regulations, as follows:

Evidence to
Master.

An ordinance concerning the Illinois Central Railroad Company.

Be it ordained by the common council of the city of Chicago:

Sec. 1. That permission is hereby granted to the Illinois Central Railroad Company, to lay down, construct, and maintain within the limits of the city of Chicago, and along the margin of the lake within and adjacent to the same, a railroad, with one or more tracks, and to operate the same with locomotive engines and cars, under such rules and regulations, with reference to speed of trains, the receipt, safe keeping and delivery of freight, and arrangements for the accommodation and conveyance of passengers, not inconsistent with the public safety, as said company may from time to time establish, and to have the right of way and all powers incident to and necessary therefor, in the manner and upon the terms and conditions following, to wit:

625 The said road shall enter said city at or near the intersection of its southern boundary with Lake Michigan, and following the shore on or near the margin of said lake northerly to the southern bounds of the open space known as Lake park, in front of canal section fifteen, and continue northerly across the open space in front of said section fifteen to such grounds as the said company may acquire between the north line of Randolph street and the Chicago river, in the Fort Dearborn addition to said city, upon which said grounds shall be located the depot of said railroad within the city, and such other buildings, slips, or apparatus, as may be necessary and convenient for the business of said company. But it is expressly understood that the city of Chicago does not undertake to obtain

Permission to construct and maintain road within city limits.

Evidence before
Master.

Grant of right of way
in perpetuity between
Twelfth street and Ran-
dolph street on lake
front.

Power to extend
works and fill out into
the lake between south
pier and Randolph
street.

Permission to con-
struct and maintain
track to south branch
Chicago river, and
across same to Kinzie
street.

for said company any right of way, or other right, privilege, or easement, not now in the power of said city to grant or confer, or to assume any liability or responsibility for the acts of said company.

Sec. 2. The said company may enter upon and use in perpetuity for its said line of road, and other works necessary to protect the same from the lake, a width of three hundred feet, from the southern boundary of said public ground near Twelfth street, to the northern line of Randolph street; the inner or west line of the ground to be used by said company to be not less than four hundred feet east from the west line of Michigan avenue, and parallel thereto.

Sec. 3. The said company may extend their works and fill out into the lake to a point in the southern pier not less than four hundred feet west from the present east end of the same, thence parallel with Michigan avenue to the north line of Randolph street extended; but it is expressly understood that the common council does not grant any right or privilege beyond the limits above specified, nor beyond the line that may be actually occupied by the works of said company. It is further expressly understood that should any damage or obstruction occur to the harbor of Chicago, clearly traceable to the construction of said works contemplated by sections two and three hereof, then the said company shall be held responsible for the same.

Sec. 4. Permission and right of way are hereby given to the said company to construct and maintain a side track from its main track, beginning at or south of Twelfth 626 street, proceeding through said street, or such line as may be prescribed by the common council, westerly to the South branch of the Chicago river; thence crossing the said South branch by a bridge, or other mode to be approved by the common council which shall not obstruct navigation; thence

proceeding northerly to Kinzie street, following as far as practicable the streets nearest to said branch, on such sides of the centre of streets as the common council may prescribe; said track not to be laid west of the west line of Canal street; and also a tract leading from the last-mentioned track at or near its intersection with the eastern line of the said South branch of the Chicago river, along the line of said South branch, into Market street, following, as far as possible, the streets nearest the river and on such sides of such streets as the common council may direct; thence along the west line of Market street northerly to Lake street; and they may also extend the track of said road from their track or grounds south of the south pier, across the Chicago river to North Water street by means of a draw-bridge, or other mode which shall not obstruct navigation, and which may be approved by the common council.

Sec. 5. And the said tracks shall be so constructed, furnished and operated as to meet the demands of business upon the streets and lines through and along which they shall run. The said side tracks, stations, depots, turn-outs, switches, turn-tables, buildings and bridges along said line, as well as the motive power to be used and the rate of speed thereon, to be subject to such regulations as the common council may from time to time prescribe for the government of side tracks of railroads within the inhabited portions of the city; said side tracks shall be open to the use of other railroad companies and railroads connecting therewith, upon just and equitable terms, to be agreed upon by the parties interested, and in case of disagreement, by arbitration.

Sec. 6. The said company shall erect and maintain on the western or inner line of the ground pointed out for its main track on the lake shore, as the same is hereinbefore defined, such suitable walls, fences or other suf-

And also to build bridge and lay track across the Chicago river to North Water street.

Tracks to be subject to city regulations. Side tracks to be open to use of other roads on fair terms.

Company to construct fences and gates on western line of right of way on lake shore.

Evidence before
Master.

ficient works, as will prevent animals from straying upon or obstructing its tracks, and secure persons and property from danger, said structure to be of suitable materials and 627 slightly appearance, and of such heights as the common council may direct, and no change therein shall be made except by mutual consent: Provided, however, that the company shall construct such suitable gates at proper places at the ends of the streets, which are now or may hereafter be laid out, as may be required by the common council, to afford safe access to the lake: And, provided, also, that in case of the construction of an outside harbor, streets may be laid out to approach the same, in the manner provided by law, in which case the common council may regulate the speed of locomotives and trains across them.

And to erect a continuous breakwater from Randolph street to south of Lake park.

Sec. 7. The said company shall erect and complete within three years after they shall have accepted this ordinance, and shall forever thereafter maintain, a continuous wall or structure of stone masonry, pier work or other sufficient material, of regular and slightly 628 appearance, and not to exceed in height the general level of Michigan avenue, opposite thereto, from the north side of Randolph street to the southern bound of Lake park before mentioned, at a distance of not more than 300 feet east from and parallel with the western or inner line, pointed out for said company, as specified in section two hereof, and shall continue said works to the southern boundary of the city, at such distance outside of the track of said road as may be expedient, which structure and works shall be of sufficient strength and magnitude to protect the entire front of said city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan, and that part of the structure south of Lake park shall be commenced and prosecuted with

all reasonable dispatch, after the acceptance of this ordinance.

Sec. 8. The said company shall not in any manner, nor for any purpose whatever, occupy, use or intrude upon the open ground known as Lake park, belonging to the city of Chicago, lying between Michigan avenue and the western or inner line before mentioned, except so far as the common council may consent, for the convenience of said company, while constructing or repairing the works in front of said ground.

Company not to occupy or use Lake park.

Evidence be
Master.

Sec. 9. The said company shall erect no buildings between the north line of Randolph street and the south line of the said Lake 628 park, nor occupy nor use the works proposed to be constructed between these points, except for the passage of, or for making up or distributing their trains; nor place upon any part of their works between said points any obstruction to the view of the lake from the shore, nor suffer their locomotives, cars or other articles to remain upon their tracks, but only erect such works as are proper for the construction of their necessary tracks and protection of the same.

And shall not erect buildings between Randolph street and south line of Lake park, or permit cars to stand.

Sec. 10. The said company, in constructing their said line of works in front of Lake park and the public grounds, shall make and keep open, through the same, such culverts or ways as the common council shall prescribe, from the open lake to the space inside of the western line before mentioned, as will afford room for the uninterrupted flow of the water through the same.

And shall make, and keep open, culverts for the flow of water.

Sec. 11. The said company shall lay down, construct, operate and maintain a track, with suitable turn-outs, switches and turn-tables through Twelfth street, or through such other street north of North street as the common council may designate, from their main track on the lake shore, to connect with the said tracks to be constructed by the Chicago & Rock Island Railroad Company, or procure

Company to lay down track through Twelfth street if the city provide right of way.

Evidence before
Master.

the same to be done, as provided by an ordinance of the city of Chicago, passed April 2, 1852, so soon as the said track on the east side of the south branch of the river shall be completed: Provided, that the city of Chicago shall furnish the right of way to the said company, free of cost, before requiring said track to be constructed.

On acceptance of ordinance contract to be made.

Sec. 12. Upon the acceptance of this ordinance by the said company (which shall be within ninety days of the passing of the same) a contract or agreement embodying the provisions herein contained, and stipulating that the permission, rights and privileges hereby conferred upon said company shall depend upon the performance on their part of the requirements made upon them by this ordinance shall be executed, sealed and delivered on the part of the city of Chicago by the mayor thereof, and on the part of the Illinois Central Railroad Company by the president thereof, both in usual legal form.

I, H. W. Zimmerman, clerk of the city of Chicago, do hereby certify that the foregoing is a true copy of an ordinance passed by the common council of said city on 629 the 14th day of June, A. D. 1852.

Witness my hand and the corporate seal of said city this 8th day of July, 1852.

(Signed) H. W. ZIMMERMAN,
Clerk.

The resolutions were read to the board and separately considered; whereupon it was,

On motion,

Resolution of board accepting ordinance.

Resolved, That the Illinois Central Railroad Company do hereby accept the ordinance of the common council of the city of Chicago, passed on the 14th day of June, 1852, and the officers of the company are hereby directed and empowered to prepare and duly execute, under the corporate seal of this corporation, the agreement or contract

necessary for the proper execution of the provisions of the ordinance above named, and of the plans of this company, as authorized on the part of the city of Chicago, by the 12th section of the said ordinance.

On motion,

Resolved, That the Chicago location substantially as described in the ordinance of the common council of Chicago, be adopted, approved and confirmed, and that the necessary maps, drawings and descriptions be prepared by the chief engineer, and duly certified by him and the other officers of the company, in order to file and record the same in the manner prescribed by law.

Adoption of location
through Chicago.

Now know ye, that this agreement made and concluded this twenty-eighth day of March, in the year of our Lord one thousand eight hundred and fifty-three, by and between the common council of the city of Chicago, in the State of Illinois, of the first part, and the Illinois Central Railroad Company, a corporation created by an act of the legislature of the State of Illinois, of the second part, witnesseth, that in consideration of the acceptance of the said ordinance, according to the terms and requirements thereof, as hereinbefore recited or set forth, and of the agreements and matters herein contained, all and singular the permission, grants, conveyances, rights, privileges, easements, immunities, possession, franchises, exemptions, releases and benefits given and granted, or intended to be given and granted, by virtue of and according to the true intent and meaning of the said ordinance, hereinbefore recited and set forth, and made part of this agreement, are hereby confirmed and ratified and made forever binding upon the said city of Chicago, subject to the conditions and provisions in said ordinance contained and made part and parcel of this agreement.

Confirmation by city
of Chicago of ordinance
by agreement.

And this indenture further witnesseth,

Evidence before
Master.

Evidence before
Master.

Covenant by I. C. R.
R. to perform all condi-
tions.

That for and in consideration of the consent, grants, covenants and agreements on the part of the said city of Chicago, as aforesaid, made, entered into and concluded, and herein ratified and confirmed, the said Illinois Central Railroad Company do hereby covenant and agree to and with the said city of Chicago, and the common council thereof, that they do and will ratify and confirm all and singular the provisions, stipulations, covenants and agreements in said ordinance, and the said acceptance thereof, contained or provided for, and on their part to do and perform, according to the true intent and meaning thereof, all the things required to be done, by the terms of said ordinance, upon the acceptance thereof, in manner and form, and at the times and upon the conditions, and subject to the reservations and forfeitures therein contained, it being stipulated and agreed that the permission, rights and privileges conferred upon said party of the second part by said ordinance, and herein confirmed, shall depend upon the performance on the part of the said party of the second part, of the requirements made upon them by said ordinance as herein recited, set forth, ratified and confirmed.

Agreement to be of
binding and perpetual
obligation.

And the said parties do hereby mutually and severally declare and affirm this agreement to be made in accordance with the terms of said ordinance, and the acceptance thereof as above recited and set forth, and for the purpose of confirming, ratifying and establishing the same as of binding and perpetual obligation between said contracting parties, hereby agreeing and covenanting each with the other to stand to, abide by, and to do and perform all the obligations therein contained according to the true intent, meaning and interpretation thereof, forever, subject to the limitations, restrictions and forfeitures therein contained.

In witness whereof, the common council of the city of Chicago in behalf of said city of Chicago, party of the first part, have caused their corporate seal to be hereto affixed, and these presents to be signed by Charles M. Gray, the mayor of said city, and the Illinois Central Railroad Company, the said party of the second part, have caused
631 their corporate seal to be hereunto affixed, and these presents to be signed by Robert Schuyler, their president, the day and year last above written.

Sealed and delivered in the presence of—

[Seal of the City of Chicago.]

CHARLES M. GRAY,

Mayor of the City of Chicago.

Attest: H. W. ZIMMERMAN, City Clerk.

[Seal of the Illinois Central Railroad Company.]

THE ILLINOIS CENTRAL RAILROAD COMPANY,

By ROBERT SCHUYLER, President.

S. ALOFSEN.

MOSES B. MACLAY.

Evidence before
Master.

State of New York, City and County of New York, ss:

I, Moses B. Maclay, of said city, a commissioner of the State of Illinois in the city and State of New York to take depositions, acknowledgments of deeds, etc., to be used or recorded in the State of Illinois, duly commissioned by his excellency the governor thereof and qualified, do hereby certify that on this twenty-eighth day of March, in the year 1853, before me, in the said city of New York, came Robert Schuyler, the president of the Illinois Central Railroad Company, with whom I am personally acquainted, and who, being by me duly sworn, deposes and says that he resides in the city of New York; that he is the president of the Illinois Central Railroad Company; that the seal affixed to the within agreement is the corporate seal of the president, directors, and company of the said railroad company and was affixed to the said agreement by order of said directors for the uses therein expressed, and that he, by like order, did subscribe his name thereto as president of the said Illinois Central Railroad Company.

In witness whereof I have hereunto subscribed my name and affixed my seal of office as such commissioner, at my

Evidence before Master. office, in the city of New York, the said twenty-eighth day of March, A. D. 1853.

[Seal.]

MOSES B. MACLAY,
Illinois Commissioner in the City of New York.

Ordinance granting right of way for approach to passenger depot.

(Adopted 10th September, 1855.)

Whereas, it has become necessary for the Illinois Central Railroad Company, in order to approach its passenger-house, to curve its tracks westwardly of the line for its track fixed by the ordinance of June 14th, 1852, by crossing said line south of Randolph street, extended and proceeding 632 northwesterly to its said passenger-house; and

Whereas, the said company has presented to this council a petition, accompanied by a map of its depot grounds, showing the tracks and curves as proposed to be made; therefore,

Resolved, That permission be and the same is hereby granted to said company to curve its tracks westwardly of the line fixed by said ordinance, so as to cross said line at a point not more than two hundred feet south of Randolph street, extending and curving said tracks northwesterly as they approach the depot and crossing the north line of Randolph street, extended at a point not more than one hundred feet west of the line fixed by the ordinance aforesaid, in accordance with the map or plat thereof submitted by said company and placed on file for reference.

Upon the following conditions, however:

First. That the said company shall lay out upon its own land, west of and alongside its passenger-house, a street fifty feet wide extending from Water street to Randolph street, and fill the same up its entire length within two years from the passage of this resolution.

Second. That said company shall be restricted in the use of said tracks south of the north line of Randolph street, precisely as is provided by said ordinance of June 14th, 1852.

relative to the main and side tracks, and shall permit no cars to stand thereon except as is in said ordinance provided.

Evidence before
Master.

Third. When the said company shall fill up under its said tracks south of the north line of Randolph street down to the point where said curves and side tracks commence, and the city shall grant its permission so to fill up its tracks, it shall also fill up, at the same time and to an equal height, all the space between the track so filled up and the lake shore as it now exists, from the north side of Randolph street down to the point where said curves and side tracks intersect the line fixed by the ordinance aforesaid.

Fourth. That the said company shall file with the city clerk its acceptance of the terms of this resolution and its agreement to abide by and perform the said conditions before it shall construct said tracks.

Such acceptance to be under the corporate seal of said company and the signature of the president thereof.

State of Illinois, County of Cook, City of Chicago, ss:

I, Caspar Butz, city clerk of the city of Chicago, do hereby certify that the above and foregoing is a true and correct copy of a resolution concerning the Illinois Central Railroad Company, adopted September 10th, 1855, and that the original, of which the foregoing is a copy, is entrusted to my care for safe keeping and is on file in my office.

Witness my hand and the corporate seal of the city of Chicago this thirteenth day of January, 1877.

[Seal.]

CASPAR BUTZ,

City Clerk.

633 Acceptance of the Foregoing Ordinance by the I. C.
R. R. Co.

Office of the Illinois Central R. R. Co.,

City of Chicago, September, 11th, 1855.

The Illinois Central Railroad Company does hereby accept of the terms of a resolution passed by the common council of the city of Chicago on the 10th day of September, 1855.

Evidence before
Master.

whereby permission is given to said company to curve its tracks westwardly of the line fixed by the ordinance of June 14th, 1852, so as to cross said line at a point not more than two hundred feet south of Randolph street, extending and curving said tracks northwesterly as they approach the depot, and crossing the north line of Randolph street extended at a point not more than one hundred feet west of the line fixed by the ordinance aforesaid, in accordance with the map or plan thereof submitted by said company and placed on file for reference.

And the said company agrees to abide by and perform all the conditions set forth in or annexed to said resolution at the time and in the manner therein set forth.

In witness whereof and in accordance with one of said conditions the said company has caused this acceptance and agreement to be made under its corporate seal and this signature of its president.

J. N. A. GRISWOLD, President.

State of Illinois, County of Cook, City of Chicago, ss:

I, Caspar Butz, city clerk of the city of Chicago, do hereby certify that the above and foregoing is a true and correct copy of the acceptance of the Illinois Central Railroad Company of a resolution adopted by the common council of said city September 10th, 1855, the original of which is entrusted to my care for safe keeping and is on file in my office.

Witness my hand and the corporate seal of the city of Chicago this thirteenth day of January, 1877.

[Seal.]

CASPAR BUTZ,
City Clerk.

An ordinance granting additional right of way to the Illinois Central Railroad Company. Evidence before Master.

(Passed September 15th, 1856.)

Whereas, the common council of this city, by an ordinance of the 14th day of June, 1852, granted to the Illinois Central Railroad Company the right to enter and use in perpetuity, for its line of railroad and other works necessary to protect the same from the lake, a width of three hundred feet from the southern boundary of the public ground on Twelfth street to the northern line of Randolph street, the inner or the west line of which ground so to be used by the company, to be not less than four hundred feet east from the west line of Michigan avenue and parallel thereto; and,

Whereas, the ground thus granted is shown to be too
634 narrow to afford said company a convenient means of approaching and using a part of their station grounds, between Randolph street and the Chicago river; therefore,

Be it ordained by the common council of the city of Chicago:

That permission is hereby granted to the said Illinois Central Railroad Company to enter upon and use in perpetuity for its line of railroad and other works necessary to protect the same from the lake, the space between its present breakwater and a line drawn from a point on said breakwater, seven hundred feet south of the north line of Randolph, extended, and running thence on a straight line to the south-east corner of its present breakwater, and thence to the river. Provided, however, and this permission is only given upon the express condition that the portion of said line which lies south of the north line of Randolph street extended, shall be kept subject to all the conditions and restrictions, as to the use of the same, as are imposed upon that part of said line by the said ordinance of June 14, 1852.

Evidence before
Master.

Copy of Record in the Suit of The United States v. Illinois
Central Railroad Company.

United States of America, Northern District of Illinois, ss.

Be it remembered that on the 1st day of July, A. D. 1871, Joseph O. Glover, attorney of the United States for the northern district of Illinois, comes in his own proper person into the circuit court of the United States for said district, and on behalf of the United States gives said court to understand and be informed that the city of Chicago is a port of entry duly established by law; that the waters of Lake Michigan lying in front of the city of Chicago are and from time immemorable have been navigable waters; that the Congress of the United States, in order to promote the convenience and safety of vessels navigating said waters and entering and departing from said port, has from time to time appropriated and expended large sums of money in and about the mouth of Chicago river and has constructed two piers, called the north pier and the south pier respectively, extending from the north and south banks of said river eastwardly for a considerable distance into said lake; that said Congress in the month of July, A. D. 1870, appropriated a large sum of money to construct an outer harbor at Chicago in accordance with the plans of the engineer department of the United States; that said proposed outer harbor is correctly represented by the plan hereto annexed, marked D. C. Houston, and made a part of this information, the red lines representing the breakwater by which said outer harbor is to be inclosed; that the said south pier originally extended from a point near Michigan avenue eastward; that the Illinois Central Railroad Company, a corporation duly established by law and having its place of business in Chicago, in said district, has from time to time wrongfully and without color of right filled up with earth a portion of said lake lying south of said south pier for a distance of over 1,000 feet eastward and southward, and has erected on such made land freight-houses and elevators, and has cut away said south pier at three different points, as indicated on said annexed plan, for the purpose of making slip basins, which it leases, and from which it derives a large income, and from said slip basins it excludes all vessels which do not pay toll to said company or its lessees; that since August, A. D. 1869, said company has commenced filling with

earth that portion of said lake marked on said plan "in process of being filled with earth," and since the commencement of the work on the said outer harbor has continued such filling, and to hasten the same, has built in and over the navigable waters a railroad track, marked on said plan "R. R. track on piles;" that it is the intention of said company to continue to fill with earth to a point at least 600 feet east of the land last made by them as aforesaid; that the portion of said lake so filled by said company as aforesaid and that portion of said lake which said company intends to fill as aforesaid was until said filling and from time immemorial had been navigable and a common highway for all citizens of the United States with their vessels to pass, repass, and navigate at their will and pleasure; that by reason of the filling up of said lake as aforesaid the navigation of said lake has been greatly obstructed and lessened and such navigation will be still more obstructed and lessened and said outer harbor greatly damaged if said company shall further carry out its plans of further filling up said lake as aforesaid.

Evidence before
Master.

And forasmuch as the United States have supervisory control over all the navigable waters within the boundaries thereof and all citizens of the United States have the right with their vessels to the free and unobstructed navigation of the same——

Therefore the said attorney of the United States, in behalf of the United States, prays this honorable court to issue its writ of injunction to restrain the said Illinois Central Railroad Company, its servants and agents, from further obstructing the navigable waters of said lake, and especially from obstructing and in any way encroaching upon said proposed outer harbor by filling any portion of the same with earth or by building railroad tracks therein, or any in other manner, and to restrain said company and its lessees from exacting toll or other dues of vessels entering and mooring in said slip basin, and also to abate the obstructions to the navigation of said lake already made by said company as aforesaid, and also to grant a writ of summons requiring said company to appear and answer all and singular the charges above set forth, and also to grant such other and further relief in the premises as to this honorable court shall seem meet.

J. O. GLOVER,

United States Attorney, Northern District of Illinois.

(Indorsed:) "Filed July 3d, 1871. Wm. H. Bradley, clerk."

vidence before
Master.

The original information, of which this is a copy, having been destroyed by fire, it is hereby stipulated that this paper may be filed in lieu of the original and is to be treated in all respects as if it were the original.

J. O. GLOVER,
United States Attorney,
JNO. N. JEWETT,
For Defendant.

(Indorsed:) "Filed January 16, 1872. Wm. H. Bradley, clerk."

In the Circuit Court of the United States for the Northern
District of Illinois.

United States of America	}	Information.
v.		
Illinois Central Railroad Company,		

The matters presented and set forth in the information in the above entitled cause relating to the construction of the docks and wharves in the basin or outer harbor of the city of Chicago formed by the breakwater now in process of erection by the Government of the United States having been referred to the War Department of said Government, and the same having been considered and reported upon by engineer officers appointed by the Secretary of War for that purpose, and the harbor lines limiting the construction of docks and wharves in said outer harbor, as recommended by said engineers, having been approved by the Secretary of War as follows: "Commencing at the pier on the south side of the entrance to the Chicago river 1,200 feet west of the Government breakwater aforesaid, thence south to an intersection with the north line of Randolph street extending eastwardly, thence due west 800 feet, and thence south to the east and west breakwater proposed to be constructed by the United States 4,000 feet south of the pier first above mentioned, the line so established being fixed as the line to which docks and wharves may be extended by parties entitled to construct them within said outer harbor;

And the said defendant being desirous of proceeding with

the construction of docks and wharves within said outer harbor, between the pier aforesaid, on the south side of the entrance to the Chicago river and the north line of Randolph street aforesaid, extended eastwardly in conformity with the limiting harbor lines so fixed and established as aforesaid and under the supervision of the engineer bureau of the United States Government, and having agreed and hereby expressly stipulating to conform and to observe the plan of limiting harbor lines so recommended and approved as aforesaid, as well as the directions which may be given in reference to the proper construction of said docks and wharves by the proper officers of the engineer bureau of the United States—

Evidence before
Master.

It is thereupon and in consideration of the premises stipulated and agreed that the injunctive order heretofore made and entered of record in this cause, by agreement of the parties, be set aside and vacated and the information herein dismissed with leave to the said complainant to reinstate the same whenever the said defendant shall fail or refuse to conform to the limiting harbor lines so established as aforesaid and the directions of the proper engineer officer of the United States in charge in the construction of docks and wharves in the said outer harbor or any part thereof.

THE ILLINOIS CENTRAL RAILROAD
COMPANY.

By JOHN NEWELL, President.

J. O. GLOVER,

United States Attorney.

(Indorsed:) "Filed January 16, 1872. Wm. H. Bradley,
clerk."

Tuesday, January 16, 1872.

The United States of America) In Chancery.
v.	
The Illinois Central Railroad Company.)

Present: The Hon. Henry W. Blodgett, the district judge.

Now comes the district attorney and the attorney for the defendant, and, as per stipulation, filed, it is ordered that the

Evidence before
Master.

information now filed and upon which an injunction was granted by the court be taken and treated in all respects as the original; and now, on like stipulation, it is ordered by the court that the injunction so ordered as aforesaid be set aside and vacated and the information herein dismissed, with 642 leave to the complainants to reinstate the same upon a failure by the defendant to observe in good faith on their part the condition expressed in the stipulation filed herein.

Northern District of Illinois, ss.

I, William H. Bradley, clerk of the circuit court of the United States for said northern district of Illinois, do hereby certify the above and foregoing to be a true and correct copy of the information, stipulations, and the order of said court entered in said court on the 16th day of January, A. D. 1872, in the cause wherein The United States of America are the complainants and The Illinois Central Railroad Company the defendant, as the same appears from the original information, stipulations, and order now remaining in my custody and control.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office, in Chicago, in said district, the 23d day of July, A. D. 1881.

WM. H. BRADLEY, Clerk.

Action of War De-
partment on
plans of I. C. R.
R. Co.

Action of the War Department of the Plans of the Illinois Central Railroad Company for the Improvement of the Harbor.

Office of the Chief of Engineers,
Washington, D. C., Sept. 29, 1871.

Sir: A board of engineer officers was constituted by your authority in August last to assemble in Chicago, Ill., to take into consideration the plans submitted by the Illinois Central Railroad Company for docks and wharves in the basin now being formed by the construction of the United States break-water, to report their views thereon, and to establish the limiting lines for such constructions in that basin, reference being had to the interests of commerce and of navigation.

The report of the board is herewith transmitted and the ap-

proval of the harbor line proposed by it is respectfully recommended, together with so much of the plan submitted by the president of the Illinois Central Railroad Company as relates to wharves north of the north line of Randolph street prolonged.

Evidence before
Master.

It also recommended that the construction of wharves within the limiting harbor line south of Randolph street shall not be authorized until the plans for them have been approved by the Secretary of War.

Very respectfully, your obedient servant,

A. A. HUMPHREYS,
Brig. Gen. and Chief of Engineers.

Hon W. W. Belknap, Secretary of War.

(Indorsement.)

Approved.

WM. W. BELKNAP,
Secretary of War.

October 4, 1871.

643 Report of the Board of Engineers of 1871.

Proceedings of the board of engineers, convened in pursuance of the following order, viz:

(Special Orders No. 108.)

Headquarters Corps of Engineers,
Washington, D. C., Aug. 3, 1871.

(Extract.)

* * * * *

2. A board of engineers, to consist of Lieut. Col. I. C. Woodruff, corps of engineers; Maj. G. K. Warren, corps of engineers; Maj. D. C. Houston, corps of engineers, will assemble in Chicago, Ill., on the 16th of August, 1871, or as soon thereafter as practicable, to take into consideration the plans for docks in the basin now being formed by the construction

Evidence before
Master.

of the United States breakwater in that harbor; which docks are proposed to be built by the Illinois Central Railroad Company or others; to report their views thereon, and to establish the limiting lines for such construction in that basin, reference being had to the interests of commerce and navigation therein.

The object sought to be obtained by the construction of the breakwater and the legitimate use of the basin should be fully discussed by the board and the grounds for its conclusions clearly stated.

* * * * *

By command of Brig. Gen. A. A. Humphreys:
THOS. LINCOLN CASEY,
Major of Engineers.

* * * * *

Report of the Board.

The board find that, in pursuance of a resolution of the house of representatives of Feb. 17, 1869, a survey was made at the port of Chicago, with a view "to secure such additional and enlarged facilities as the necessities of commerce at that point demanded." The survey was made under the direction of Maj. J. B. Wheeler, corps of engineers, in 1869. The following extracts are taken from Maj. Wheeler's report:

Therefore, in a commercial point of view, Chicago ranks very highly; probably the third or fourth port in the United States. It is manifest that the Chicago river is taxed to its utmost capacity to accommodate the present condition of affairs, and that it is utterly inadequate to meet the wants of commerce rapidly growing.

I would, therefore, propose inclosing a portion of the lake, forming an outer harbor that would meet the present wants and capable of being enlarged as the future might require. My plan would be to continue the work on the extension of the south pier until it is equal in length to the north, then build a breakwater at right angles and extending south-
644 ward for 4,000 feet, and then join the extremity of this breakwater to the shore by a pier—an opening of 300 feet or more to be left in the pier forming the north side of the basin to admit vessels from the harbor entrance.

This basin would contain an area of 275 acres, one-third of which would have a depth of over 12 feet of water and the remainder a depth of over 7 feet, that can be easily deepened to 12 feet, affording a splendid harbor of refuge for all classes of vessels sailing to and from this port at the present time.

The location of this basin or outer harbor is given on the tracing accompanying this report, drawn in red dotted lines. As the future necessities required an enlargement of this basin, it would only be necessary to prolong the breakwater to any required distance, join the extremity to the shore by a pier, and make an opening in the present proposed boundary.

A judicious arrangement of wharves and slips on the western or shore side of the basin would afford an abundance of dock privileges, by means of which the river would be relieved from its present crowded condition.

This arrangement would fall naturally into the hands of the city authorities or owners of the property along the shore, and does not, therefore, properly belong to this report.

I would mention in this connection the claim made by owners of water fronts to the land under the water. Before an improvement of this kind is made the exact rights of the owners should be understood and made known to all interested.

This report was approved by a board of engineer officers and by the chief of engineers. An appropriation of \$100,000 was made by the act of Congress dated July 11, 1870, for "enlargement of harbor facilities at Chicago, Ill., according to the plans of the engineer department, and for a harbor refuge, \$50,000. The latter sum was designed for the improvement of the mouth of the Calumet river, 12 miles south of Chicago.

It appears, therefore, from the reports of the engineer officers and the act of Congress based on them that the objects of the breakwater now in process of construction at Chicago, are, first, to afford the necessary anchorage ground, and, second, to enable the owners of property on the lake shore to construct wharves and slips on the western side of the basin,

Evidence before
Master.

which could not be done without such protection, and thus relieve the crowded condition of the river. The "outer harbor" is not immediately required as a harbor of refuge, the river being equally accessible, and a harbor of refuge is being formed at the mouth of the Calumet river, 12 miles south of Chicago, for the security of vessels which fail to make Chicago harbor during northerly gales. In the future it is probable that vessels will seek Chicago harbor of much greater draught than can now enter the Chicago river, and these will necessarily seek the outer harbor. It is, therefore, necessary that sufficient space be left between the breakwater and the wharves constructed in the basin to admit the free passage of vessels and for anchorage grounds. The board is of opinion

that an open space of not less than 1,200 feet west of the 645 breakwater north of the north line of Randolph street and 2,000 feet west of the breakwater south of that line is sufficient for the purpose of a "roadstead," and would recommend that a line commencing at a point on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present designed, be established as the harbor line, beyond which no wharves or other structures shall extend. As the future wants of commerce require the breakwater can be extended southward, and thus furnish harbor facilities to any extent. The board are also of the opinion that the new wharves should be built with due regard to sanitary requirements, and that the piers should be, in part, at least, of open pile work, so as to admit the free circulation of the water, and thus prevent the accumulation of foul matter in the slips. If the location of the slips could be made on prolongation of the streets, as suggested by Dr. Rauch, of the board of health, it would be better for ventilation, but for convenience of approach for vehicles it might be better to place the piers on the prolongation of the streets. These arrangements should be regulated by the local authorities.

The plan of wharves submitted by the Illinois Central Railroad Company south of the north line of Randolph street, besides being designed to extend 800 feet beyond the line we have recommended, seems objectionable in making the space too wide for general purposes between the slips, thus dimin-

ishing unnecessarily the amount of room for vessels. As the question of ownership to the land on the shore from the north line of Randolph to Madison street is now in the United States circuit court of the northern district of Illinois on a complaint made by the United States, to which answer was made by the president of the Illinois Central Railroad Company in December, 1869, it would seem proper that no piers should be allowed to be built there until a settlement has been made.

Evidence be-
Master.

Besides the interests of commerce and navigation there are local matters affecting the legitimate use of the basin, which should be controlled by the city. After all questions of rights along the lake shore have been disposed of, whoever may be entitled to build piers, if such a right exists, should then be required to submit his plans to the engineer department for approval. Until that time all parties should be prohibited from filling up any part of the basin now being formed outside of the present line of piling made to protect the track of the Illinois Central Railroad Company. North of Randolph street there is no dispute as to ownership of the Illinois Central railroad nor any opposition to building wharves, but south of that line there are strong objections on the part of the city authorities and those whose interests are affected, as fully explained in the accompanying communication from the board of public works.

The board has had an opportunity of conversing with a number of ship-owners, captains of vessels, and others 646 representing various opinions, and, as far as they could be obtained in writing, their views are submitted with this report.

The president of the Illinois Central Railroad Company informs the board that he is ready to commence the construction of wharves in the basin as soon as the harbor line is fixed and the existing restrictions removed.

The following maps and papers are submitted with this report:

1. Map of Chicago harbor, showing harbor line and plan of docks approved by the board.

Evidence before
Master.

2. Printed statement in relation to docks and wharves in the outer harbor of Chicago by Illinois Central Railroad Company.

3. Copy of letter of president of the Illinois Central Railroad Company to the Secretary of War, with map.

4. Letter from Dr. Rauch, sanitary superintendent of city of Chicago.

5. Letter from board of public works, city of Chicago.

6. Pamphlet containing a report of E. S. Chesbrough, city engineer, and the act of the legislature relating to a portion of the submerged lands and Lake Park grounds lying in and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago.

7. Pamphlet, The United States of America versus Illinois Central Railroad Company, Chicago, Burlington & Quincy Railroad Company, Michigan Central Railroad Company, The City of Chicago, et al.

8. Plan of docks proposed by the Illinois Central Railroad Company.

9. Views of ship-owners, captains of vessels, and others on objects of basin.

10. Report on outside harbor of Chicago by a committee of board of trade, March 8, 1870.

Respectfully submitted.

I. C. WOODRUFF,

Lieut. Col. of Engineers, Bvt. Brig. Gen'l U. S. A.

G. K. WARREN,

Major of Engineers, Bvt. Maj. Gen'l, U. S. A.

D. C. HOUSTON,

Major of Engineers, Bvt. Colonel.

Ordinance of the city of Chicago, extending Randolph street eastwardly, and giving permission to build viaduct.

July 12th, 1880.

Be it ordained by the city council of the city of Chicago:

Section 1. Randolph street is hereby extended and produced straight eastwardly and declared to be a public street from its present eastern terminus, to the west line of the right of way of the Illinois Central Railroad Company as established by the ordinance of September 10th, 1855, of the same width as said street is west of its present eastern terminus, and also straight eastwardly, of the same width, and on a line 647 with that part of the street west of said right of way, from the easterly line of slip C, produced southerly to Lake Michigan; the said extension of Randolph street to be such that it shall be a continuous street from its present eastern terminus to Lake Michigan, of the same width and in the same direction as the part of Randolph street west of its said eastern terminus, excepting from such extension of the space between the easterly line of said slip C, produced southerly, and the said west line of the right of way of the Illinois Central Company.

Sec. 2. That permission and authority be, and hereby is given to the Illinois Central Railroad Company to construct and maintain at its own cost and expense, a bridge or viaduct within the line of Randolph street as extended under the provision of section 1 hereof, and over the tracks and right of way of the Illinois Central and Michigan Central Railroad Companies, together with suitable and convenient approaches. The approach from the west to said bridge or viaduct shall be not exceeding thirty feet in width, and shall commence at the east line of Michigan avenue produced northerly, from the south. Said approaches and viaduct to be constructed and located in accordance with plans to be approved by the commissioner of public works.

Sec. 3. The permission and authority hereby granted are upon the express condition that the said railroad company shall and will forever indemnify and save harmless, the city of Chicago, against and from any and all damages, judgments, decrees and costs and expenses of the same which it may suffer, or which may be recovered or obtained against said city

Evidence before
Master.

for or by reason of, or growing out of, or resulting from the passage of this ordinance, or any matter or thing connected therewith, or with the exercise by said company of the privilege hereby granted.

Sec. 4. The said bridge or viaduct shall be built in a straight easterly direction corresponding with the course of Randolph street and in such part of said street as may be directed by the commissioner of public works. The cost of maintaining and repairing the same shall be borne by the Illinois Central Railroad Company, and the right to the use of the said bridge or viaduct shall be forever free to the public and to all persons having occasion to pass and repass thereon.

And there shall be accommodation made on said viaduct for foot passengers.

Sec. 5. Unless the said bridge or viaduct shall be completed and opened to the public within one year and a half from the passage of this ordinance, then the permission and authority herein granted for the erection of the same shall cease and be void and of no effect.

Sec. 6. This ordinance shall take effect and be in force from and after its passage.

State of Illinois, County of Cook, City of Chicago.

I, P. J. Howard, city clerk of the city of Chicago, do hereby certify that the above foregoing is a true and correct copy of an ordinance concerning the construction of a viaduct on Randolph street over the right of way of the Illinois Central Railroad Company, passed by the city council of said city July 12, 1880, and that I am the keeper of the original ordinance.

Witness my hand and the corporate seal of said city this 20th day of July, 1880.

(Seal.)

P. J. HOWARD, City Clerk.

Pier at the foot of 13th Street.

Illinois Central Railroad Company,
Office of the General Superintendent,
Chicago, May 26th, 1882.

G. J. Lydecker, major of engineers, U. S. A., Chicago.

Dear Sir: The discussion before the board of engineers which has been in session for two days in this city, brought into prominence the desirability of having either a crib protection or a substantial wharf extending eastwardly from the shore at or near Park row to protect the outer harbor from south and southeast storms.

I submit herewith a plan of a wharf two hundred and fifty (250) feet wide, the eastern end of which is on the dock line established by the board of United States engineers some years ago. You will observe the proposed wharf is six hundred and fifteen (615) feet south of the south line of Park row, extended east.

Will you please submit the plan for the approval of the proper authorities, unless you think changes in it are desirable, in which event we will be pleased to conform in your judgment?

We are ready to commence the work when the plan is approved.

Yours truly,

E. T. Jeffery,
Gen'l Sup't.

(1st indorsement.)

U. S. Engineer Office,
Chicago, May 29, 1882.

Respectfully forwarded to the chief of engineers, U. S. Army.

The dock which the Illinois Central R. R. requests authority to construct is located beyond the limits of the outer harbor, and will intercept seas coming from a southerly direction.

Evidence before
Master.

thereby preventing in a great measure the disturbance created in the harbor by such seas.

If the legal right to build a wharf at this point rests in the railroad company, I see no reason why the United States should oppose its construction. It is proposed to make this dock 250 feet wide, which in my opinion is greater than should be allowed for a dock within the limits of the outer harbor; but for this location, I do not understand that the interests of the United States will be injuriously affected by building the structure as proposed.

G. J. LYDECKER,
Major of Engineers.

Office of the Chief of Engineers,
United States Army,
Washington, D. C., June 12, 1882.

E. T. Jeffery, gen'l sup't Illinois Central R. R. Co., Chicago, Ill.

Sir: Your letter of May 26, 1882, addressed to Major G. J. Lydecker, corps of engineers, submitting a plan of a wharf two hundred and fifty feet wide, the eastern end of which is on the dock line established by the board of engineers in 1871 for the outer harbor at Chicago, Ill., &c., was forwarded to this office May 29, 1882.

The Secretary of War approves the following suggestion of the chief of engineers, and directs that you be informed accordingly:

"It is therefore suggested that the railroad company be advised that the War Department interposes no objection to the construction of the proposed dock, provided that no change be made in its location and length as shown on the plat presented in the within letter of E. T. Jeffery, the general superintendent of said company, dated May 26, 1882."

Very respectfully, your ob't servant,

H. G. WRIGHT,
Chief of Engineers, Brig. and Bvt. Maj. Gen'l.
1556 R. & H., '82

Evidence before
Master.

650

Illinois Central Railroad Company,
Office of the General Superintendent,
Chicago, June 15th, 1882.

H. G. Wright, chief of engineers, brig. and brvt. major gen'l,
U. S. A., Washington, D. C.

Sir: I beg to acknowledge receipt of your letter of 12th inst. notifying me of the approval by the honorable the Secretary of War of your suggestion that the War Department interposes no objection to the construction by the Illinois Central Railroad Company of the proposed dock, as shown on the plat forwarded to you with my letter of May 26, 1882.

We will construct the dock in conformity with the plat submitted both as to location and length.

Respectfully yours,

E. T. JEFFERY,
Gen'l Sup't.

(Endorsed:) Filed June 4, 1887. Wm. H. Bradley, clerk.

Northern District of Illinois, ss.

I, William H. Bradley, clerk of the circuit court of the United States for said northern district of Illinois, do hereby certify the above and foregoing to be a true and correct transcript of the record of all the proceeding had in said court in the cause wherein The People of the State of Illinois upon the relation of George Hunt, attorney general, is the complainant, and The Illinois Central Railroad Company, The City of Chicago, and The United States of America are the defendants, as the same appears from the records and files of said court now remaining in my custody and control.

Certificate of
Clerk

Seal of Circuit Court
U. S., Northern
Dist. Illinois, 1855.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office, in Chicago, in said district, northern division, this second day of September, 1890.

WM. H. BRADLEY, Clerk.

Order allowing
appeal, Sept.
22, 1890. 655

In the Circuit Court of the United States for the
Northern Division of the Northern District of Illi-
nois.

Monday, September 22, 1890.

Present: Hon. Henry W. Blodgett, district judge.

The People of the State of Illinois ex Rel.	} In Chancery. Bill
George Hunt, Attorney General,	
v.	
Illinois Central Railroad Company and City of Chicago	

and

City of Chicago	} Cross-Bill.
v.	
Illinois Central Railroad Company and	
The People of the State of Illinois.	

And now come The People of the State of Illinois, by George Hunt, attorney general for the State of Illinois, and pray an appeal to the Supreme Court of the United States from the decree of this court heretofore entered in this cause; which prayer for appeal is allowed by the court upon filing an appeal bond in the penal sum of one hundred dollars, signed by the attorney general, with security to be approved by the court.

APPEAL BOND.

Appeal bond filed
Sept. 23, 1890.

Know all men by these presents that we, George Hunt, attorney general of the State of Illinois, as principal, and Isaac N. Pearson, as surety, are held and firmly bound unto the Illinois Central Railroad Company in the full and just sum of one hundred dollars, to be paid to said obligee or to its successors or assigns; to which payment, well and truly to be made, we bind ourselves, our heirs, executors, and administrators, jointly and severally, by these presents.

Whereas, lately at a term of the circuit court of the United States for the northern district of Illinois held at Chicago, to wit, on the 24th day of September, A. D. 1888, in a suit or in-

formation in equity depending in said court between The People of the State of Illinois ex rel. George Hunt, attorney general, complainant, and the Illinois Central Railroad Company, and the City of Chicago defendants, and a certain cross-bill therein between The City of Chicago, complainant, and The Illinois Central railroad and The People of the State of Illinois, defendants, a decree was rendered against the said People of the State of Illinois, and The People of the State of Illinois having prayed an appeal to the Supreme Court of the United States, which was allowed by said circuit court, to reverse the decree in the aforesaid suit, and a citation directed to the said Illinois Central Railroad Company and the said City of Chicago, citing and admonishing each of them to be and appear at a Supreme Court of the United States 626 to be holden at Washington on the second Monday of October next.

Appeal bond filed
Sept. 23, 1890.

Now, the condition of this obligation is such that if The People of the State of Illinois shall prosecute its said appeal to effect and answer all costs if they fail to make their plea good, then the above obligation to be void; otherwise to remain in full force and effect.

In witness whereof we have hereunto set our hands and seals this twenty-third day of September, A. D. 1890.

GEO. HUNT, (Seal.)

Attorney General of the State of Illinois.

ISAAC N. PEARSON, (Seal.)

Approved,

W. Q. GRESHAM.

(Endorsed:) Filed September 23, 1890. Wm. H. Bradley, clerk.

Northern District of Illinois, ss:

I, William H. Bradley, clerk of the circuit Court of the United States for said northern district of Illinois, do hereby certify the above and foregoing to be true and complete copies of the order entered of record September twenty-second, 1890, and of the appeal bond filed September twenty-third, 1890, in said court in the cause wherein The People of the State of Illinois ex rel. George Hunt, attorney general, is

Certificate of
Clerk.

Certificate of Clerk. complainant and The Illinois Central Railroad Company and The City of Chicago are defendants, and in a certain cross-cause wherein The City of Chicago is complainant and The Illinois Central Railroad Company and The People of the State of Illinois are defendants, as the same appear from the records and files of said court now remaining in my custody and control.

Seal of Circuit Court
U. S., Northern
Dist. Illinois, 1855.

In testimony whereof I have hereunto set my hand and affixed the seal of said court, at my office, in Chicago, in said district, northern division, this thirteenth day of October, 1890.

WM. H. BRADLEY, Clerk.

Citation. United States of America, Northern District of Illinois, ss:

To Illinois Central Railroad Company and The City of Chicago, Greeting:

You are hereby cited and admonished to be and appear at a Supreme Court of the United States, to be holden at Washington on the second Monday of October, A. D. 1890, pursuant to an order of court allowing an appeal entered in the circuit court of the United States for the northern district of Illinois in a suit or information in equity depending between The People of the State of Illinois ex rel. George Hunt, attorney general, and The Illinois Central Railroad Company and The City of Chicago, defendants, and a certain cross-bill therein between The City of Chicago, complainant, and The Illinois Central Railroad Company and The People of the State of Illinois, defendants, to show cause, if any there be, why the decree mentioned should not be corrected and speedy justice should not be done to the parties in that behalf.

Witness the Hon. Walter Q. Gresham, judge of said circuit court, this 23d day of September, in the year of our Lord one thousand eight hundred and ninety.

WALTER Q. GRESHAM,
Circuit Judge.

[Endorsed:] Supreme Court of the United States. People of the State of Illinois ex rel. Hunt, att'y gen'l, appellant, vs. Illinois Central R. R. Co. and City of Chicago, appellees. Citation to October term, A. D. 1890.

Service of the within citation by copy is accepted this twenty-fourth day of September, A. D. 1890.

JONAS HUTCHINSON,
Corporation Counsel for the City of Chicago.

Service of the within citation by copy is accepted this twenty-ninth day of September, A. D. 1890.

JNO. N. JEWETT,
Sol'r for Illinois Central R. R. Co.

Assignment of Error on Behalf of the People of the State of Illinois.

Assignment of errors.

The court erred in sustaining the validity of the act of the General Assembly of the State of Illinois entitled "An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago," in force April 16, 1869, and in confirming the title of the Illinois Central Railroad Company to the portion of said submerged lands reclaimed by said company prior to the repeal of said act.

GEORGE HUNT,
Attorney General of the State of Illinois.

Endorsed on cover: Case No. 14,135. N. Illinois C. C. U. S. No. 768. The Illinois Central Railroad Company, appellant, vs. The People of the State of Illinois and The City of Chicago. Filed September 6, 1890. Case No. 14,414. No. 974. The City of Chicago, appellant, vs. The Illinois Central Railroad Company et al. Case No. 14,415. No. 975. The People of the State of Illinois, appellants, vs. The Illinois Central Railroad Company and The City of Chicago. Case No. 14,416. No. 976. The United States, appellant, vs. The People of the State of Illinois et al. Filed November 10, 1890.

OPINION OF THE COURT.

Opinion.

658 Mr. Justice Field delivered the opinion of the court.

This suit was commenced on the 1st of March, 1883, in a Circuit Court of Illinois, by an information or bill in equity, filed by the Attorney General of the State, in the name of its people against the Illinois Central Railroad Company, a corporation created under its laws, and against the city of Chicago. The United States were also named as a party defendant, but they never appeared in the suit, and it was impossible to bring them in as a party without their consent. The alleged grievances arose solely from the acts and claims of the railroad company, but the city of Chicago was made a defendant because of its interest in the subject of the litigation. The railroad company filed its answer in the state court at the first term after the commencement of the suit, and upon its petition the case was removed to the Circuit Court of the United States for the Northern District of Illinois. In May following the city appeared to the suit and filed its answer, admitting all the allegations of fact in the bill. A subsequent motion by the complainant to remand the case to the state court was denied. 16 Fed. Rep. 881. The pleadings were afterward altered in various particulars. An amended information or bill was filed by the Attorney General, and the city filed a cross-bill for affirmative relief against the State and the company. The latter appeared to the cross-bill and answered it, as did the Attorney General for the State. Each party has prosecuted a separate appeal.

The object of the suit is to obtain a judicial determination of the title of certain lands on the east or lake front of the city of Chicago, situated between the Chicago River and Sixteenth street, which have been reclaimed from the waters of the lake, and are occupied by the tracks, depots, warehouses, piers and other structures used by the railroad company in its business; and also of the title claimed by the company to the submerged lands, constituting the bed of the lake, lying east of its tracts, within the corporate limits of the city, for the distance of a mile, and between the south line of the south pier near Chicago River extended eastwardly, and a line
659 extended, in the same direction, from the south line of lot 21 near the company's round-house and machine

shops. The determination of the title of the company will involve a consideration of its rights to construct, for its own business, as well as for public convenience, wharves, piers and docks in the harbor. Opinion.

We agree with the court below that, to a clear understanding of the numerous questions presented in this case, it was necessary to trace the history of the title to the several parcels of land claimed by the company. And the court, in its elaborate opinion, (33 Fed. Rep. 730,) for that purpose referred to the legislation of the United States and of the State, and to ordinances of the city and proceedings thereunder, and stated, with great minuteness of detail, every material provision of law and every step taken. We have with great care gone over the history detailed and are satisfied with its entire accuracy. It would, therefore, serve no useful purpose to repeat what is, in our opinion, clearly and fully narrated. In what we may say of the rights of the railroad company, of the State, and of the city, remaining after the legislation and proceedings taken, we shall assume the correctness of that history.

The State of Illinois was admitted into the Union in 1818 on an equal footing with the original States in all respects. Such was one of the conditions of the cession from Virginia of the territory northwest of the Ohio River, out of which the State was formed. But the equality prescribed would have existed if it had not been thus stipulated. There can be no distinction between the several States of the Union in the character of the jurisdiction, sovereignty and dominion which they may possess and exercise over persons and subjects within their respective limits. The boundaries of the State were prescribed by Congress and accepted by the State in its original Constitution. They are given in the bill. It is sufficient for our purpose to observe that they include within their eastern line all that portion of Lake Michigan lying east of the main land of the State and the middle of the lake south of latitude forty-two degrees and thirty minutes.

663 It is the settled law of this country that the ownership of and dominion and sovereignty over lands covered by tide waters, within the limits of the several States, belong to the respective States within which they are found, with the consequent right to use or dispose of any portion thereof.

Opinion. when that can be done without substantial impairment of the interest of the public in the waters, and subject always to the paramount right of Congress to control their navigation so far as may be necessary for the regulation of commerce with foreign nations and among the States. This doctrine has been often announced by this court, and is not questioned by counsel of any of the parties. *Pollard's Lessee v. Hagan*, 3 How. 212; *Weber v. Harbor Commissioners*, 18 Wall. 57.

The same doctrine is in this country held to be applicable to lands covered by fresh water in the Great Lakes over which is conducted an extended commerce with different States and foreign nations. These lakes possess all the general characteristics of open seas, except in the freshness of their waters, and in the absence of the ebb and flow of the tide. In other respects they are inland seas, and there is no reason or principal for the assertion of dominion and sovereignty over and ownership by the State of lands covered by tide waters that is not equally applicable to its ownership of and dominion and sovereignty over lands covered by the fresh waters of these lakes. At one time the existence of tide waters was deemed essential in determining the admiralty jurisdiction of courts in England. That doctrine is now repudiated in this country as wholly inapplicable to our condition. In England the ebb and flow of the tide constitute the legal test of the navigability of waters. There no waters are navigable in fact, at least to any great extent, which are not subject to the tide. There, as said in the case of *The Genesee Chief*, 12 How. 443, 455, "tide water and navigable water are synonymous terms, and tide water, with a few small and unimportant exceptions, meant nothing more than public rivers, as contradistinguished from private ones;" and writers on the subject of admiralty jurisdiction "took the ebb and flow of the tide as the test because it was a convenient one, and more easily determined the character of the river. Hence the established doctrine in England, that the admiralty jurisdiction is confined to the ebb and flow of the tide. In other words, it is confined to public navigable waters."

But in this country the case is different. Some of our rivers are navigable for great distances above the flow of the tide: indeed, for hundreds of miles, by the largest vessels used in commerce. As said in the case cited: "There is certainly nothing in the ebb and flow of the tide that makes the waters peculiarly suitable for admiralty jurisdiction, nor any-

thing in the absence of a tide that renders it unfit. If it is a public navigable water, on which commerce is carried on between different States or nations, the reason for the jurisdiction is precisely the same. And if a distinction is made on that account, it is merely arbitrary, without any foundation in reason; and, indeed, would seem to be inconsistent with it." Opinion.

The Great Lakes are not in any appreciable respect affected by the tide, and yet on their waters, as said above, a large commerce is carried on, exceeding in many instances the entire commerce of States on the borders of the sea. When the reason of the limitation of admiralty jurisdiction in England was found inapplicable to the condition of navigable waters in this country, the limitation and all its incidents were discarded. So also, by the common law, the doctrine of the dominion over and ownership by the crown of lands within the realm under tide waters is not founded upon the existence of the tide over the lands, but upon the fact that the waters are navigable, tide waters and navigable waters, as already said, being used as synonymous terms in England. The public being interested in the use of such waters, the possession by private individuals of lands under them could not be permitted except by license of the crown, which could alone exercise such dominion over the waters as would insure freedom in their use so far as consistent with the public interest. The doctrine is founded upon the necessity of preserving to the public the use of navigable waters from private interruption and encroachment, a reason as applicable to navigable fresh waters as to waters moved by the tide.

662 We hold, therefore, that the same doctrine as to the dominion and sovereignty over and ownership of lands under the navigable waters of the Great Lakes applies, which obtains at the common law as to the dominion and sovereignty over and ownership of lands under tide waters on the borders of the sea, and that the lands are held by the same right in the one case as in the other, and subject to the same trusts and limitations. Upon that theory we shall examine how far such dominion, sovereignty and proprietary right have been encroached upon by the railroad company, and how far that company had, at the time, the assent of the State to such encroachment, and also the validity of the claim which the company asserts of a right to make further en-

Opinion.

croachments thereon by virtue of a grant from the State in April, 1860.

The city of Chicago is situated upon the southwestern shore of Lake Michigan, and includes, with other territory, fractional sections 10 and 15, in township 39 north, range 14 east of the third principal meridian, bordering on the lake, which forms their eastern boundary. For a long time after the organization of the city its harbor was the Chicago River, a small, narrow stream opening into the lake near the centre of the east and west line of section 10, and in it the shipping arriving from other ports of the lake and navigable waters was moored and anchored, and along it were docks and wharves. The growth of the city in subsequent years in population, business and commerce required a larger and more convenient harbor, and the United States, in view of such expansion and growth, commenced the construction of a system of breakwaters and other harbor protections in the waters of the lake in front of the fractional sections mentioned. In the prosecution of this work there was constructed a line of breakwaters or cribs of wood and stone covering the front of the city between the Chicago River and Twelfth street, with opening in the piers or lines of cribs for the entrance and departure of vessels, thus enclosing a large part of the lake for the uses of shipping and commerce, and creating an outer harbor for Chicago. It comprises a space about one mile and one-half in length from north to south, and is of a width from east to west varying from 663 one thousand to four thousand feet. As commerce and shipping expand, the harbor will be further extended towards the south, and, as alleged by the amended bill, it is expected that the necessities of commerce will soon require its enlargement so as to include a great part of the entire lake front of the city. It is stated, and not denied, that the authorities of the United States have in a general way indicated a plan for the improvement and use of the harbor which has been enclosed as mentioned, by which a portion is devoted as a harbor of refuge where ships may ride at anchor with security and within protecting walls, and another portion of such enclosure nearer the shore of the lake may be devoted to wharves and piers, alongside of which ships may load and unload and upon which warehouses may be constructed and other structures erected for the convenience of lake commerce.

The case proceeds upon the theory and allegation that the defendant, the Illinois Central Railroad Company, has, without lawful authority, encroached, and continues to encroach, upon the domain of the State, and its original ownership and control of the waters of the harbor and of the lands thereunder, upon a claim of rights acquired under a grant from the State and ordinance of the city to enter the city and appropriate land and water two hundred feet wide in order to construct a track for a railway, and to erect thereon warehouses, piers and other structures in front of the city, and upon a claim of riparian rights acquired by virtue of ownership of lands originally bordering on the lake in front of the city. It also proceeds against the claim asserted by the railroad company of a grant by the State, in 1869, of its right and title to the submerged lands, constituting the bed of Lake Michigan lying east of the tracks and breakwater of the company, for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended in the same direction from the south line of lot twenty-one south of and near the machine shops and round-house of the company; and of a right thereby to construct at its pleasure, in the harbor, wharves, piers and other works for its use.

664 The State prays a decree establishing and confirming its title to the bed of Lake Michigan and exclusive right to develop and improve the harbor of Chicago by the construction of docks, wharves, piers and other improvements, against the claim of the railroad company, that it has an absolute title to such submerged lands by the act of 1869, and the right, subject only to the paramount authority of the United States in the regulation of commerce, to fill all the bed of the lake within the limits above stated, for the purpose of its business; and the right, by the construction and maintenance of wharves, docks and piers, to improve the shore of the lake for the promotion generally of commerce and navigation. And the State, insisting that the company has, without right, erected and proposes to continue to erect wharves and piers upon its domain, asks that such alleged unlawful structures may be ordered to be removed, and the company be enjoined from erecting further structures of any kind.

And first, as to the lands in the harbor of Chicago pos-

Opinion. sessed and used by the railroad company under the act of Congress of September 20, 1850, (9 Stat. 466, c. 61,) and the ordinance of the city of June 14, 1852. By that act Congress granted to the State of Illinois a right of way not exceeding one hundred feet in width, on each side of its length through the public lands, for the construction of a railroad from the southern terminus of the Illinois and Michigan Canal to a point at or near the junction of the Ohio and Mississippi Rivers, with a branch to Chicago and another via the town of Galena to a point opposite Dubuque in the State of Iowa, with the right to take the necessary materials for its construction. And, to aid in the construction of the railroad and branches, by the same act it granted to the State six alternate sections of land, designated by even numbers, on each side of the road and branches, with the usual reservation of any portion found to be sold by the United States, or to which the right of pre-emption had attached at the time the route of the road and branches was definitely fixed, in which case provision was made for the selection of equivalent lands in contiguous sections.

665 The lands granted were made subject to the disposition of the legislature of the State; and it was declared that the railroad and its branches should be and remain a public highway for the use of the government of the United States, free from toll or other charge upon the transportation of their property or troops.

The act was formally accepted by the legislature of the State, February 17, 1851, (Laws of 1851, 192, 193.) A few days before, and on the 10th of that month, the Illinois Central Railroad Company was incorporated. It was invested generally with the powers, privileges, immunities and franchises of corporations, and specifically with the power of acquiring by purchase or otherwise, and of holding and conveying real and personal estate which might be needful to carry into effect fully the purposes of the act.

It was also authorized to survey, locate, construct and operate a railroad, with one or more tracks or lines or rails, between the points designated and the branches mentioned. And it was declared that the company should have a right of way upon, and might appropriate to its sole use and control, for the purposes contemplated, land not exceeding two

hundred feet in width throughout its entire length; and might enter upon and take possession of and use any lands, streams and materials of every kind, for the location of depots and stopping stages, for the purpose of constructing bridges, dams, embankments, engine-houses, shops and other buildings necessary for completing, maintaining and operating the road. All such lands, waters, materials and privileges belonging to the State were granted to the corporation for that purpose; and it was provided that, when owned by or belonging to any person, company or corporation, and they could not be obtained by voluntary grant or release, the same might be taken and paid for by proceedings for condemnation as prescribed by law.

Opinion.

It was also enacted that nothing in the act should authorize the corporation to make a location of its road within any city without the consent of its common council. This consent was given by an ordinance of the common council 666 of Chicago, adopted June 14, 1852. By its first section

it granted permission to the company to lay down, construct and maintain within the limits of the city, and along the margin of the lake within and adjacent to the same, a railroad, with one or more tracks, and to operate the same with locomotive engines and cars, under such rules and regulations with reference to speed of trains, the receipt, safe-keeping and delivery of freight, and arrangements for the accommodation and conveyance of passengers, not inconsistent with the public safety, as the company might from time to time establish, and to have the right of way and all powers incident to and necessary therefor in the manner and upon the following terms and conditions, namely, that the road should enter the city at or near the intersection of its then southern boundary with Lake Michigan, and follow the shore on or near the margin of the lake northerly to the southern bounds of the open space known as Lake park, in front of canal section fifteen, and continue northerly across the open space in front of that section to such grounds as the company might acquire between the north line of Randolph street and the Chicago river, in the Fort Dearborn addition, upon which grounds should be located the depot of the railroad company within the city, and such other buildings, slips or apparatus as might be necessary and convenient for its business. But it was understood that the city did not undertake to obtain for the company any right of way, or other

Opinion. right, privilege or easement, not then in its power to grant, or to assume any liability or responsibility for the acts of the company. It also declared that the company might enter upon and use in perpetuity for its line of road and other works necessary to protect the same from the lake, a width of three hundred feet from the southern boundary of the public ground near Twelfth street, to the northern line of Randolph street; the inner or west line of the ground to be not less than four hundred feet east from the west line of Michigan avenue, and parallel thereto; and it was authorized to extend its works and fill out into the lake to a point in the southern pier not less than four hundred feet west from the then east end of the same, thence parallel with Michigan 667 avenue to the north side of Randolph street, extended; but it was stated that the common council did not grant any right or privilege beyond the limits above specified, nor beyond the line that might be actually occupied by the works of the company.

By the ordinance the company was required to erect and maintain on the western or inner line of the ground pointed out for its main tracks on the lake shore such suitable walls, fences or other sufficient works as would prevent animals from straying upon or obstructing its tracks, and secure persons and property from danger; and to construct such suitable gates at proper places at the ends of the streets, which were then or might thereafter be laid out, as required by the common council, to afford safe access to the lake; and provided that, in the case of the construction of an outside harbor, streets might be laid out to approach the same in the manner provided by law. The company was also required to erect and complete within three years after it should have accepted the ordinance, and forever thereafter maintain, a continuous wall or structure of stone masonry, pier-work or other sufficient material, of regular and slight appearance, and not to exceed in height the general level of Michigan avenue, opposite thereto, from the north side of Randolph street to the southern bound of Lake park, at a distance of not more than three hundred feet east from and parallel with the western or inner line of the company, and continue the works to the southern boundary of the city, at such distance outside of the track of the road as might be expedient; which structure and works should be of sufficient strength and magnitude to protect the entire front of the city, between

the north line of Randolph street and its southern boundary, from further damage or injury from the action of the waters of Lake Michigan; and that that part of the structure south of Lake park should be commenced and prosecuted with reasonable despatch after acceptance of the ordinance. It was also enacted that the company should "not in any manner, nor for any purpose whatever, occupy, use or intrude upon the open ground known as 'Lake park,' belonging to the city of Chicago, lying between Michigan avenue and the western or inner line before mentioned, except so far as 668 the common council may consent, for the convenience of said company, while constructing or repairing the works in front of said ground." And it was declared that the company should "erect no buildings between the north line of Randolph street and the south side of said Lake park, nor occupy nor use the works proposed to be constructed between these points, except for the passage of or for making up or distributing their trains, nor place upon any part of their works between said points any obstruction to the view of the lake from the shore, nor suffer their locomotives, cars or other articles to remain upon their tracks, but only erect such works as are proper for the construction of their necessary tracks and protection of the same."

The company was allowed ninety days to accept this ordinance, and it was provided that upon such acceptance a contract embodying its provisions should be executed and delivered between the city and the company, and that the rights and privileges conferred upon the company should depend upon the performance on its part of the requirements made. The ordinance was accepted and the required agreement drawn and executed on the 28th of March, 1853.

Under the authority of this ordinance the railroad company located its tracks within the corporate limits of the city. Those running northward from Twelfth street were laid upon piling in the waters of the lake. The shore line of the lake was at that time, at Park row, about four hundred feet from the west line of Michigan avenue, and at Randolph street about one hundred and twelve and a half feet. Since then the space between the shore line and the tracks of the railroad company has been filled with earth under the direction of the city and is now solid ground.

Opinion. After the tracks were constructed the company erected a breakwater east of its roadway upon a line parallel with the west line of Michigan avenue, and afterwards filled up the space between the breakwater and its tracks with earth and stone.

We do not deem it material, for the determination of any questions presented in this case, to describe in detail the extensive work of the railroad company under the permission given to locate its road within the city by the ordinance. It is sufficient to say that when this suit was commenced it had reclaimed from the waters of the lake a tract, two hundred feet in width, for the whole distance allowed for its entry within the city, and constructed thereon the tracks needed for its railway, with all the guards against danger in its approach and crossings as specified in the ordinance, and erected the designated breakwater beyond its tracks on the east, and the necessary works for the protection of the shore on the west. Its works in no respect interfered with any useful freedom in the use of the waters of the lake for commerce, foreign, interstate or domestic. They were constructed under the authority of the law by the requirement of the city as a condition of its consent that the company might locate its road within its limits, and cannot be regarded as such an encroachment upon the domain of the State as to require the interposition of the court for their removal or for any restraint in their use.

The railroad company never acquired by the reclamation from the waters of the lake of the land upon which its tracks are laid, or by the construction of the road and works connected therewith, an absolute fee in the tract reclaimed, with a consequent right to dispose of the same to other parties, or to use it for any other purpose than the one designated—the construction and operation of a railroad thereon with one or more tracks and works in connection with the road or in aid thereof. The act incorporating the company only granted to it a right of way over the public lands for its use and control, for the purpose contemplated, which was to enable it to survey, locate, and construct and operate a railroad. All lands, waters, materials and privileges belonging to the State were granted solely for that purpose. It did not contemplate, much less authorize, any diversion of the property to any other purpose. The use of it was restricted to the purpose

expressed. Whilst the grant to it included waters of streams in the line of the right of way belonging to the State, it was accompanied with a declaration that it should not be so construed as to authorize the corporation to interrupt the navigation of the streams. If the waters of the lake may be deemed to be included in the designation of streams, 670 then their use would be held equally restricted. The prohibition upon the company to make a location of its road within any city, without the consent of its common council, necessarily empowered that body to prescribe the conditions of the entry so far at least as to designate the place where it should be made, the character of the tracks to be laid, and the protection and guards that should be constructed to insure their safety. Nor did the railroad company acquire by the mere construction of its road and other works any rights as a riparian owner to reclaim still further lands from the waters of the lake for its use, or the construction of piers, docks and wharves in the furtherance of its business. The extent to which it could reclaim the land under the waters was limited by the conditions of the ordinance, which was simply for the construction of a railroad on a tract not to exceed a specified width, and of works connected therewith.

We shall hereafter consider what rights the company acquired as a riparian owner from its acquisition of title to lands on the shore of the lake, but at present we are speaking only of what rights it acquired from the reclamation of the tract upon which the railroad and the works in connection with it are built. The construction of a pier or the extension of any land into navigable waters for a railroad or other purposes, by one not the owner of lands on the shore, does not give the builder of such pier or extension, whether an individual or corporation, any riparian rights. Those rights are incident to riparian ownership. They exist with such ownership and pass with the transfer of the land. And the land must not only be contiguous to the water, but in contact with it. Proximity without contact is insufficient. The riparian right attaches to land on the border of navigable water without any declaration to that effect from the former owner, and its designation in a conveyance by him would be surplusage. (See Gould on Waters, § 148, and authorities there cited.)

Opinion. The riparian proprietor is entitled, among other rights, as held in *Yates v. Milwaukee*, 10 Wall. 497, 504, to access to the navigable part of the water on the front of which lies his land, and for that purpose to make a landing, wharf or pier for his own use or for the use of the public, subject to such general rules and regulations as the legislature may prescribe for the protection of the rights of the public. In the case cited the court held that this riparian right was property and valuable; and though it must be enjoyed in due subjection to the rights of the public, it could not be arbitrarily or capriciously impaired. It had been held in the previous case of *Dutton v. Strong*, 1 Black, 23, 33, that whenever the water of the shore was too shoal to be navigable, there was the same necessity for wharves, piers and landing places as in the bays and arms of the sea; that where that necessity existed, it was difficult to see any reason for denying to the adjacent owner the right to supply it; but that the right must be understood as terminating at the point of navigability, where the necessity for such erections ordinarily ceased.

In this case it appears that fractional section 10, which was included within the city limits bordering on the lake front, was, many years before this suit was brought, divided, under the authority of the United States, into blocks and lots, and the lots sold. The proceedings taken and the laws passed on the subject for the sale of the lots are stated with great particularity in the opinion of the court below, but for our purpose it is sufficient to mention that the lots laid out in fractional section 10 belonging to the United States were sold, and, either directly or from purchasers, the title to some of them fronting on the lake north of Randolph street became vested in the railroad company, and the company, finding the lake in front of those lots shallow, filled it in and upon the reclaimed land constructed slips, wharves and piers, the last three piers in 1872, 1873, 1880, and 1881, which it claims to own and to have the right to use in its business.

According to the law of riparian ownership, which we have stated, this claim is well founded so far as the piers do not extend beyond the point of navigability in the waters of the lake. We are not fully satisfied that such is the case from the evidence which the company has produced, and the fact is not conceded. Nor does the court below find that such

672 navigable point had been established by any public authority or judicial decision, or that it had any foundation other than the judgment of the railroad company. Opinion.

The same position may be taken as to the claim of the company to the pier and docks erected in front of Michigan avenue between the lines of Twelfth and Sixteenth streets extended. The company had previously acquired the title to certain lots fronting on the lake at that point, and, upon its claim of riparian rights from that ownership, had erected the structures in question. Its ownership of them likewise depends upon the question whether they are extended beyond or are limited to the navigable point of the waters of the lake, of which no satisfactory evidence was offered.

Upon the land reclaimed by the railroad company as riparian proprietor in front of lots into which section ten was divided, which it had purchased, its passenger depot was erected north of Randolph street, and, to facilitate its approach, the common council, by ordinance adopted September 10, 1855, authorized it to curve its tracks westwardly of the line fixed by the ordinance of 1852, so as to cross that line at a point not more than two hundred feet south of Randolph street, in accordance with a specified plan. This permission was given upon the condition that the company should lay out upon its own land west of and alongside its passenger-house a street fifty feet wide, extending from Water street to Randolph street, and fill the same up its entire length, within two years from the passage of the ordinance. The company's tracks were curved as permitted, the street referred to was opened, the required filling was done, and the street has ever since been used by the public. It being necessary that the railroad company should have additional means of approaching and using its station grounds between Randolph street and the Chicago river, the city, by another ordinance adopted September 15, 1856, granted it permission to enter and use, in perpetuity, for its line of railroad and other works necessary to protect the same from the lake, the space between its then breakwater and a line drawn from a point thereon seven hundred feet south of the north line of Randolph street extended, and running thence on a straight line to the southeast corner of its present break-
673 water, thence to the river; and the space thus indicated the railroad company occupied and continued to hold

Opinion. pursuant to this ordinance, and we do not perceive any valid objection to its continued holding of the same for the purposes declared—that is, as additional means of approaching and using its station grounds.

We proceed to consider the claim of the railroad company to the ownership of submerged lands in the harbor, and the right to construct such wharves, piers, docks and other works therein as it may deem proper for its interest and business. The claim is founded upon the third section of the act of the legislature of the State passed on the 16th of April, 1869, the material part of which is as follows:

“Sec. 3. The right of the Illinois Central Railroad Company under the grant from the State in its charter, which said grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent. of its gross earnings, and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control, in and to the lands submerged or otherwise lying east of the said line running parallel with and four hundred feet of the west line of Michigan avenue, in fractional sections ten and fifteen, township and range as aforesaid, is hereby confirmed; and all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan, and lying east of the tracks and break-water of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of the said city of Chicago, are hereby granted in fee to the said Illinois Central Railroad Company, its successors and assigns; provided, however, that the fee to said lands shall be held by said company in perpetuity, and that the said company shall not have power to grant, sell or convey the fee to the same; and that all the gross receipts from use, profits, leases or otherwise of said lands, or the improvements thereon, or that may hereafter be made thereon, shall form a part of the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall forever pay into the State treasury, semi-annually, the per centum provided for in its

charter, in accordance with the requirements of said charter: and provided also, that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation; nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns, from any act of the general assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor." Opinion.

The act, of which this section is a part, was accepted by a resolution of the board of directors of the company at its office in the city of New York, July 6, 1870; but the acceptance was not communicated to the State until the 18th of November, 1870. A copy of the resolution was on that day forwarded to the Secretary of State, and filed and recorded by him in the records of his office. On the 15th of April, 1873, the legislature of Illinois repealed the act. The questions presented relate to the validity of the section cited of the act and the effect of the repeal upon its operation.

The section in question has two objects in view: one was to confirm certain alleged rights of the railroad company under the grant from the State in its charter and under and "by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident" thereto, in and to the lands submerged or otherwise lying east of a line parallel with and four hundred feet east of the west line of Michigan avenue, in fractional sections ten and fifteen. The other object was to grant to the railway company submerged lands in the harbor.

The confirmation made, whatever the operation claimed for it in other respects, cannot be invoked so as to extend the riparian right which the company possessed, from its ownership of lands in sections ten and fifteen on the shore of the lake. Whether the piers or docks constructed by it, after the passage of the act of 1869, extend beyond the point of navigability in the waters of the lake, must be the subject of judicial inquiry upon the execution of this decree in 675 the court below. If it be ascertained upon such inquiry and determined that such piers and docks do not extend beyond the point of practicable navigability, the claim of the railroad company to their title and possession will be confirmed; but if they or either of them are found on such in-

Opinion. quiry to extend beyond the point of such navigability, then the State will be entitled to a decree that they, or the one thus extended, be abated and removed to the extent shown, or for such other disposition of the extension as, upon the application of the State and the facts established, may be authorized by law.

As to the grant of the submerged lands, the act declares that all the right and title of the State in and to the submerged lands, constituting the bed of Lake Michigan, and lying east of the tracks and breakwater of the company for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended eastwardly from the south line of lot twenty-one, south of and near to the round-house and machine shops of the company "are granted in fee to the railroad company, its successors and assigns." The grant is accompanied with a proviso that the fee of the lands shall be held by the company in perpetuity, and that it shall not have the power to grant, sell or convey the fee thereof. It also declares that nothing therein shall authorize obstructions to the harbor or impair the public right of navigation, or be construed to exempt the company from any act regulating the rates of wharfage and dockage to be charged in the harbor.

This clause is treated by the counsel of the company as an absolute conveyance to it of title to the submerged lands, giving it as full and complete power to use and dispose of the same, except in the technical transfer of the fee, in any manner it may choose, as if they were uplands, in no respect covered or affected by navigable waters, and not as a license to use the lands subject to revocation by the State. Treating it as such a conveyance, its validity must be determined by the consideration whether the legislature was competent to make a grant of the kind.

The act, if valid and operative to the extent claimed, 676 placed under the control of the railroad company nearly the whole of the submerged lands of the harbor, subject only to the limitations that it should not authorize obstructions to the harbor or impair the public right of navigation, or exclude the legislature from regulating the rates of wharfage or dockage to be charged. With these limitations the act put it in the power of the company to delay indefinitely

the improvement of the harbor, or to construct as many docks, piers and wharves and other works as it might choose, and at such positions in the harbor as might suit its purposes, and permit any kind of business to be conducted thereon, and to lease them out on its own terms, for indefinite periods. The inhibition against the technical transfer of the fee of any portion of the submerged lands was of little consequence when it could make a lease for any period and renew it at its pleasure. And the inhibitions against authorizing obstructions to the harbor and impairing the public right of navigation placed no impediments upon the action of the railroad company which did not previously exist. A corporation created for one purpose, the construction and operation of a railroad between designated points, is, by the act, converted into a corporation to manage and practically control the harbor of Chicago, not simply for its own purpose as a railroad corporation, but for its own profit generally.

The circumstances attending the passage of the act through the legislature were on the hearing the subject of much criticism. As originally introduced, the purpose of the act was to enable the city of Chicago to enlarge its harbor and to grant to it the title and interest of the State to certain lands adjacent to the shore of Lake Michigan on the eastern front of the city, and place the harbor under its control, giving it all the necessary powers for its wise management. But during the passage of the act its purport was changed. Instead of providing for the cession of the submerged lands to the city, it provided for the cession of them to the railroad company. It was urged that the title of the act was not changed to correspond with its changed purpose, and an objection was taken to its validity on that account. But the majority of the court were of the opinion that the evidence was insufficient to show that the requirement of the constitution of the State, in its passage, was not complied with.

The question, therefore, to be considered is whether the legislature was competent to thus deprive the State of its ownership of the submerged lands in the harbor of Chicago, and of the consequent control of its waters; or, in other words, whether the railroad corporation can hold the lands and control the waters by the grant, against any future exercise of power over them by the State.

Opinion.

That the State holds the title to the lands under the navigable waters of Lake Michigan, within its limits, in the same manner that the State holds title to soils under tide water, by the common law, we have already shown, and that title necessarily carries with it control over the waters above them whenever the lands are subjected to use. But it is a title different in character from that which the State holds in lands intended for sale. It is different from the title which the United States hold in the public lands which are open to pre-emption and sale. It is a title held in trust for the people of the State that they may enjoy the navigation of the waters, carry on commerce over them, and have liberty of fishing therein freed from the obstruction or interference of private parties. The interest of the people in the navigation of the waters and in commerce over them may be improved in many instances by the erection of wharves, docks and piers therein, for which purpose the State may grant parcels of the submerged lands; and, so long as their disposition is made for such purpose, no valid objections can be made to the grants. It is grants of parcels of lands under navigable waters, that may afford foundation for wharves, piers, docks and other structures in aid of commerce, and grants of parcels which, being occupied, do not substantially impair the public interest in the lands and waters remaining, that are chiefly considered and sustained in the adjudged cases as a valid exercise of legislative power consistently with the trust to the public upon which such lands are held by the State. But that is a very different doctrine from the one which would sanction the abdication of the general control of the State over lands under the navigable waters of an entire harbor or bay, or of a sea or lake. Such abdication is not consistent with the exercise of that trust which requires the government of the State to preserve such waters for the use of the public. The trust devolving upon the State for the public, and which can only be discharged by the management and control of property in which the public has an interest, cannot be relinquished by a transfer of the property. The control of the State for the purposes of the trust can never be lost, except as to such parcels as are used in promoting the interests of the public therein, or can be disposed of without any substantial impairment of the public interest in the lands and waters remaining. It is only by observing the distinction between a grant of such parcels for the improvement of the public interest, or which when occupied do not substan-

tially impair the public interest in the lands and waters remaining, and a grant of the whole property in which the public is interested, that the language of the adjudged cases can be reconciled. General language sometimes found in opinions of the courts, expressive of absolute ownership and control by the State of lands under navigable waters, irrespective of any trust as to their use and disposition, must be read and construed with reference to the special facts of the particular cases. A grant of all the lands under the navigable waters of a State has never been adjudged to be within the legislative power; and any attempted grant of the kind would be held, if not absolutely void on its face, as subject to revocation. The State can no more abdicate its trust over property in which the whole people are interested, like navigable waters and soils under them, so as to leave them entirely under the use and control of private parties, except in the instance of parcels mentioned for the improvement of the navigation and use of the waters, or when parcels can be disposed of without impairment of the public interest in what remains, than it can abdicate its police powers in the administration of government and the preservation of the peace. In the administration of government the use of such powers may for a limited period be delegated to a municipality or other body, but there always remains with the State the right to revoke those powers and exercise them in a more direct manner, and one more conformable to its wishes. So with trusts connected with public property, or property of a special character, like lands under navigable waters, they cannot be placed entirely beyond the direction and control of the State.

The harbor of Chicago is of immense value to the people of the State of Illinois in the facilities it affords to its vast and constantly increasing commerce; and the idea that its legislature can deprive the State of control over its bed and waters and place the same in the hands of a private corporation created for a different purpose, one limited to transportation of passengers and freight between distant points and the city, is a proposition that cannot be defended.

The area of the submerged lands proposed to be ceded by the act in question to the railroad company embraces something more than a thousand acres, being, as stated by counsel, more than three times the area of the outer harbor, and

Opinion. not only including all of that harbor but embracing adjoining submerged lands which will, in all probability, be hereafter included in the harbor. It is as large as that embraced by all the merchandise docks along the Thames at London; is much larger than that included in the famous docks and basins at Liverpool; is twice that of the port of Marseilles, and nearly if not quite equal to the pier area along the water front of the city of New York. And the arrivals and clearings of vessels at the port exceed in number those of New York, and are equal to those of New York and Boston combined. Chicago has nearly twenty-five per cent of the lake carrying trade as compared with the arrivals and clearings of all the leading ports of our great inland seas. In the year ending June 30, 1886, the joint arrivals and clearances of vessels at that port amounted to twenty-two thousand and ninety-six, with a tonnage of over seven millions; and in 1890 the tonnage of the vessels reached nearly nine millions. As stated by counsel, since the passage of the Lake Front Act, in 1869, the population of the city has increased nearly a million souls, and the increase of commerce has kept pace with it. It is hardly conceivable that the legislature can divest the State of the control and management of this harbor and vest it absolutely in a private corporation.

Surely an act of the legislature transferring the title to its submerged lands and the power claimed by the railroad company, to a foreign State or nation would be repudiated, without hesitation, as a gross perversion of the trust over the property under which it is held. So would a similar transfer to a corporation of another State. It would not be listened to that the control and management of the harbor of that great city—a subject of concern to the whole people of the State—should thus be placed elsewhere than in the State itself. All the objections which can be urged to such attempted transfer may be urged to a transfer to a private corporation like the railroad company in this case.

Any grant of the kind is necessarily revocable, and the exercise of the trust by which the property was held by the State can be resumed at any time. Undoubtedly there may be expenses incurred in improvements made under such a grant which the State ought to pay; but, be that as it may, the power to resume the trust whenever the State judges best is, we think, incontrovertible. The position advanced by the railroad company in support of its claim to the ownership of

the submerged lands and the right to the erection of wharves, piers and docks at its pleasure, or for its business in the harbor of Chicago, would place every harbor in the country at the mercy of a majority of the legislature of the State in which the harbor is situated. Opinion.

We cannot, it is true, cite any authority where a grant of this kind has been held invalid, for we believe that no instance exists where the harbor of a great city and its commerce have been allowed to pass into the control of any private corporation. But the decisions are numerous which declare that such property is held by the State, by virtue of its sovereignty, in trust for the public. The ownership of the navigable waters of the harbor and of the lands under them is a subject of public concern to the whole people of the State. The trust with which they are held, therefore, is governmental and cannot be alienated, except in those instances mentioned of parcels used in the improvement of the interest thus held, or when parcels can be disposed of without 681 detriment to the public interest in the lands and waters remaining.

This follows necessarily from the public character of the property, being held by the whole people for purposes in which the whole people are interested. As said by Chief Justice Taney, in *Martin v. Waddell*, 16 Pet. 367, 410: "When the Revolution took place the people of each State became themselves sovereign, and in that character hold the absolute right to all navigable waters, and the soils under them, for their own common use, subject only to the rights since surrendered by the Constitution to the general government." In *Arnold v. Mundy*, 1 Halsted, 1, which is cited by this court in *Martin v. Waddell*, 16 Pet. 418, and spoken of by Chief Justice Taney as entitled to great weight, and in which the decision was made "with great deliberation and research," the Supreme Court of New Jersey comments upon the rights of the State in the bed of navigable waters, and, after observing that the power exercised by the State over the lands and waters is nothing more than what is called the *jus regium*, the right of regulating, improving and securing them for the benefit of every individual citizen, adds: "The sovereign power, itself, therefore, cannot consistently with the principles of the law of nature and the constitution of a well-ordered society, make a direct and absolute grant of the

Opinion. waters of the State, divesting all the citizens of their common right. It would be a grievance which never could be long borne by a free people." Necessarily must the control of the waters of a State over all lands under them pass when the lands are conveyed in fee to private parties, and are by them subjected to use.

In the case of *Stockton v. Baltimore and New York Railroad Company*, 32 Fed. Rep. 9, 19, 20, which involved a consideration by Mr. Justice Bradley, late of this court, of the nature of the ownership by the State of lands under the navigable waters of the United States, he said:

"It is insisted that the property of the State in lands under its navigable waters is private property, and comes strictly within the constitutional provision. It is significantly asked, can the United States take the state house at Trenton, and the surrounding grounds belonging to the State, and appropriate them to the purposes of a railroad depot, or to any other use of the general government, without compensation? We do not apprehend that the decision of the present case involves or requires a serious answer to this question. The cases are clearly not parallel. The character of the title or ownership by which the State holds the state house is quite different from that by which it holds the land under the navigable waters in and around its territory. The information rightly states that, prior to the Revolution, the shore and lands under water of the navigable streams and waters of the province of New Jersey belonged to the King of Great Britain as part of the jure regalia of the crown, and devolved to the State by right of conquest. The information does not state, however, what is equally true, that, after the conquest, the said lands were held by the State, as they were by the king, in trust for the public uses of navigation and fishery, and the erection thereon of wharves, piers, light-houses, beacons and other facilities of navigation and commerce. Being subject to this trust, they were *publici juris*; in other words, they were held for the use of the people at large. It is true that to utilize the fisheries, especially those of shell fish, it was necessary to parcel them out to particular operators, and employ the rent or consideration for the benefit of the whole people; but this did not alter the character of the title. The land remained subject to all other public uses as before, especially to those of navigation and com-

merce, which are always paramount to those of public fisheries. It is also true that portions of the submerged shoals and flats, which really interfered with navigation, and could better subserve the purposes of commerce by being filled up and reclaimed, were disposed of to individuals for that purpose. But neither did these dispositions of useless parts affect the character of the title to the remainder."

Opinion.

Many other cases might be cited where it has been decided that the bed or soil of navigable waters is held by the people of the State in their character as sovereigns in trust for public uses for which they are adapted. *Martin v. Waddell*, 16 Pet. 367, 410; *Pollard's Lessee v. Hagan*, 3 How. 212, 220; *McCready v. Virginia*, 94 U. S. 391, 394.

In *People v. New York and Staten Island Ferry Co.*, 68 N. Y. 71, 76, the Court of Appeals of New York said:

"The title to lands under tide waters, within the realm of England, were, by the common law, deemed to be vested in the king as a public trust, to subserve and protect the public right to use them as common highways for commerce, trade and intercourse. The king, by virtue of his proprietary interest could grant the soil so that it should become private property, but his grant was subject to the paramount right of public use of navigable waters, which he could neither destroy nor abridge. In every such grant there was an implied reservation of the public right, and so far as it assumed to interfere with it, or to confer a right to impede or obstruct navigation, or to make an exclusive appropriation of the use of navigable waters, the grant was void. In his treatise *De Jure Maris* (p. 22) Lord Hale says: 'The *jus privatum* that is acquired by the subject, either by patent or prescription, must not prejudice the *jus publicum*, wherewith public rivers and the arms of the sea are affected to public use;' and Mr. Justice Best, in *Blundell v. Catterall*, 5 B. & A. 268, in speaking of the subject, says: 'The soil can only be transferred subject to the public trust, and general usage shows that the public right has been excepted out of the grant of the soil.'

"The principle of the common law to which we have adverted is founded upon the most obvious principles of public policy. The sea and navigable rivers are natural high-

Opinion. ways, and any obstruction to the common right, or exclusive appropriation of their use, is injurious to commerce, and if permitted at the will of the sovereign, would be very likely to end in materially crippling, if not destroying it. The laws of most nations have sedulously guarded the public use of navigable waters within their limits against infringement, subjecting it only to such regulation by the State, in the interest of the public, as is deemed consistent with the preservation of the public right."

684 While the opinion of the New York court contains some expressions which may require explanation when detached from the particular facts of that case, the general observations we cite are just and pertinent.

The soil under navigable waters being held by the people of the State in trust for the common use and as a portion of their inherent sovereignty, any act of legislation concerning their use affects the public welfare. It is, therefore, appropriately within the exercise of the police power of the State.

In *Newton v. Commissioners*, 100 U. S. 548, it appeared that by an act passed by the legislature of Ohio, in 1846, it was provided that upon the fulfilment of certain conditions by the proprietors or citizens of the town of Canfield, the county seat should be permanently established in that town. Those conditions having been complied with, the county seat was established therein accordingly. In 1874 the legislature passed an act for the removal of the county seat to another town. Certain citizens of Canfield thereupon filed their bill, setting forth the act of 1864, and claiming that the proceedings constituted an executed contract, and prayed for an injunction against the contemplated removal. But the court refused the injunction, holding that there could be no contract and no irrevocable law upon governmental subjects, observing that legislative acts concerning public interests are necessarily public laws; that every succeeding legislature possesses the same jurisdiction and power as its predecessor; that the latter have the same power of repeal and modification which the former had of enactment, neither more nor less; that all occupy in this respect a footing of perfect equality; that this is necessarily so in the nature of things; that it is vital to the public welfare that each one should be able, at all times, to do whatever the varying circumstances and

present exigencies attending the subject may require; and that a different result would be fraught with evil. Opinion.

As counsel observe, if this is true doctrine as to the location of a county seat it is apparent that it must apply with greater force to the control of the soils and beds of navigable waters in the great public harbors held by the people in trust for their common use and of common right as an incident to their sovereignty. The legislature could not give away nor sell the discretion of its successors in respect to matters, the government of which, from the very nature of things, must vary with varying circumstances. The legislation which may be needed one day for the harbor may be different from the legislation that may be required at another day. Every legislature must, at the time of its existence, exercise the power of the State in the execution of the trust devolved upon it. We hold, therefore, that any attempted cession of the ownership and control of the State in and over the submerged lands in Lake Michigan, by the act of April 16, 1860, was inoperative to affect, modify or in any respect to control the sovereignty and dominion of the State over the lands, or its ownership thereof, and that any such attempted operation of the act was annulled by the repealing act of April 15, 1873, which to that extent was valid and effective. There can be no irrevocable contract in a conveyance of property by a grantor in disregard of a public trust, under which he was bound to hold and manage it.

The legislation of the State in the Lake Front Act, purporting to grant the fee of the submerged lands mentioned to the railroad company, was considered by the court below, in view of the preceding measures taken for the improvement of the harbor, and because further improvement in the same direction was contemplated, as a mere license to the company to prosecute such further improvement as an agency of the State, and that to this end the State had placed certain of its resources at the command of the company with such an enlargement of its powers and privileges as enabled it to accomplish the objects in view. And the court below, after observing that the act might be assumed as investing the railroad company with the power, not given in its original charter, of erecting and maintaining wharves, docks and piers in the interest of commerce, and beyond the necessities or legitimate purposes of its own business as a railroad cor-

Opinion. poration, added that it was unable to perceive why it was not competent for the State, by subsequent legislation, to repeal the act and withdraw the additional powers of the company, thereby restricting it to the business for which it was incorporated, and to resume control of the resources and property which it had placed at the command of the company for the improvement of the harbor. The court, treating the act as a license to the company, also observed that it was deemed best, when that act was passed, for the public interest that the improvement of the harbor should be effected by the instrumentality of a railroad corporation interested, to some extent, in the accomplishment of that result, and said: "But if the State subsequently determined, upon consideration of public policy, that this great work should not be entrusted to any railroad corporation, and that a corporation should not be the owner of even a qualified fee in the soil under the navigable waters of the harbor, no provision of the national or State constitution forbade the general assembly of Illinois from giving effect, by legislation, to this change of policy. It cannot be claimed that the repeal of the act of 1869 took from the company a single right conferred upon it by its original charter. That act only granted additional powers and privileges for which the railroad company paid nothing, although, in consideration of the grant of such additional powers and privileges, it agreed to pay a certain per centum of the gross proceeds, receipts, and incomes which it might derive either from the lands granted by the act, or from any improvements erected thereon. But it was not absolutely bound, by anything contained in the act, to make use of the submerged lands for the purposes contemplated by the legislature—certainly not within any given time—and could not have been called upon to pay such per centum until after the lands were used and improved, and income derived therefrom. The repeal of the act relieved the corporation from any obligation to pay the per centum referred to, because it had the effect to take from it the property from which alone the contemplated income could be derived. So that the effect of the act of 1873 was only to remit the railroad company to the exercise of the powers, privileges and franchises granted in its original charter, and withdraw from it the additional powers given by the act of 1869 for the accomplishment of certain public objects." If the act in question be treated as a mere license to the company to make the improvement in the harbor contemplated as an

agency of the State, then we think the right to cancel the agency and revoke its power is unquestionable. Opinion.

It remains to consider the claim of the city of Chicago to portions of the east water front and how such claim, and the rights attached to it, are interfered with by the railroad company.

The claim of the city is to the ownership in fee of the streets, alleys, ways, commons and other public grounds on the east front of the city bordering on the lake, as exhibited on the maps showing the subdivision of fractional sections ten and fifteen, prepared under the supervision and direction of United States officers in the one case and by the canal commissioners in the other, and duly recorded, and the riparian rights attached to such ownership. By a statute of Illinois the making, acknowledging and recording of the plats operated to vest the title to the streets, alleys, ways and commons, and other public grounds designated on such plats, in the city, in trust for the public uses to which they were applicable. *Canal Trustees v. Havens*, 11 Illinois, 556; *Chicago v. Rumsey*, 87 Illinois, 354.

Such property, besides other parcels, included the whole of that portion of fractional section fifteen which constitutes Michigan Avenue, and that part of the fractional section lying east of the west line of Michigan Avenue, and that portion of fractional section ten designated on one of the plats as "public ground," which was always to remain open and free from any buildings.

The estate, real and personal, held by the trustees of the town of Chicago was vested in the city of Chicago by the act of March 4, 1837. It followed that when the Lake Front Act of 1869 was passed the fee was in the city, subject to the public uses designated, of all the portions of section ten and fifteen, particularly described in the decree below. And we agree with the court below that the fee of the made or reclaimed ground between Randolph street and Park Row, embracing the ground upon which rest the tracks and the breakwater of the railroad company south of Randolph street, was in the city. The fact that the land which the city had a right to fill in and appropriate by virtue of its ownership of the grounds in front of the lake had been filled

Opinion. in by the railroad company in the construction of the tracks for its railroad and for the breakwater on the shore west of it, did not deprive the city of its riparian rights. The exercise of those rights was only subject to the condition of the agreement with the city, under which the tracks and breakwater were constructed by the railroad company, and that was for a perpetual right of way over the ground for its tracks of railway, and, necessarily, the continuance of the breakwater as a protection of its works and the shore from the violence of the lake. With this reservation of the right of the railroad company to its use of the tracks on ground reclaimed by it and the continuance of the breakwater, the city possesses the same right of riparian ownership, and is at full liberty to exercise it, which it ever did.

We also agree with the court below that the city of Chicago, as riparian owner of the grounds on its east or lake front of the city, between the north line of Randolph street and the north line of block twenty-three, each of the lines being produced to Lake Michigan, and in virtue of authority conferred by its charter, has the power to construct and keep in repair on the lake front, east of said premises, within the lines mentioned, public landing places, wharves, docks and levees, subject, however, in the execution of that power, to the authority of the State to prescribe the lines beyond which piers, docks, wharves and other structures, other than those erected by the general government, may not be extended into the navigable waters of the harbor, and to such supervision and control as the United States may rightfully exercise.

It follows from the views expressed, and it is so declared and adjudged, that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan, which the third section of the act of April 16, 1869, purported to grant to the Illinois Central Railroad Company, and that the act of April 15, 1873, repealing the same is 689 valid and effective for the purpose of restoring to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16, 1869.

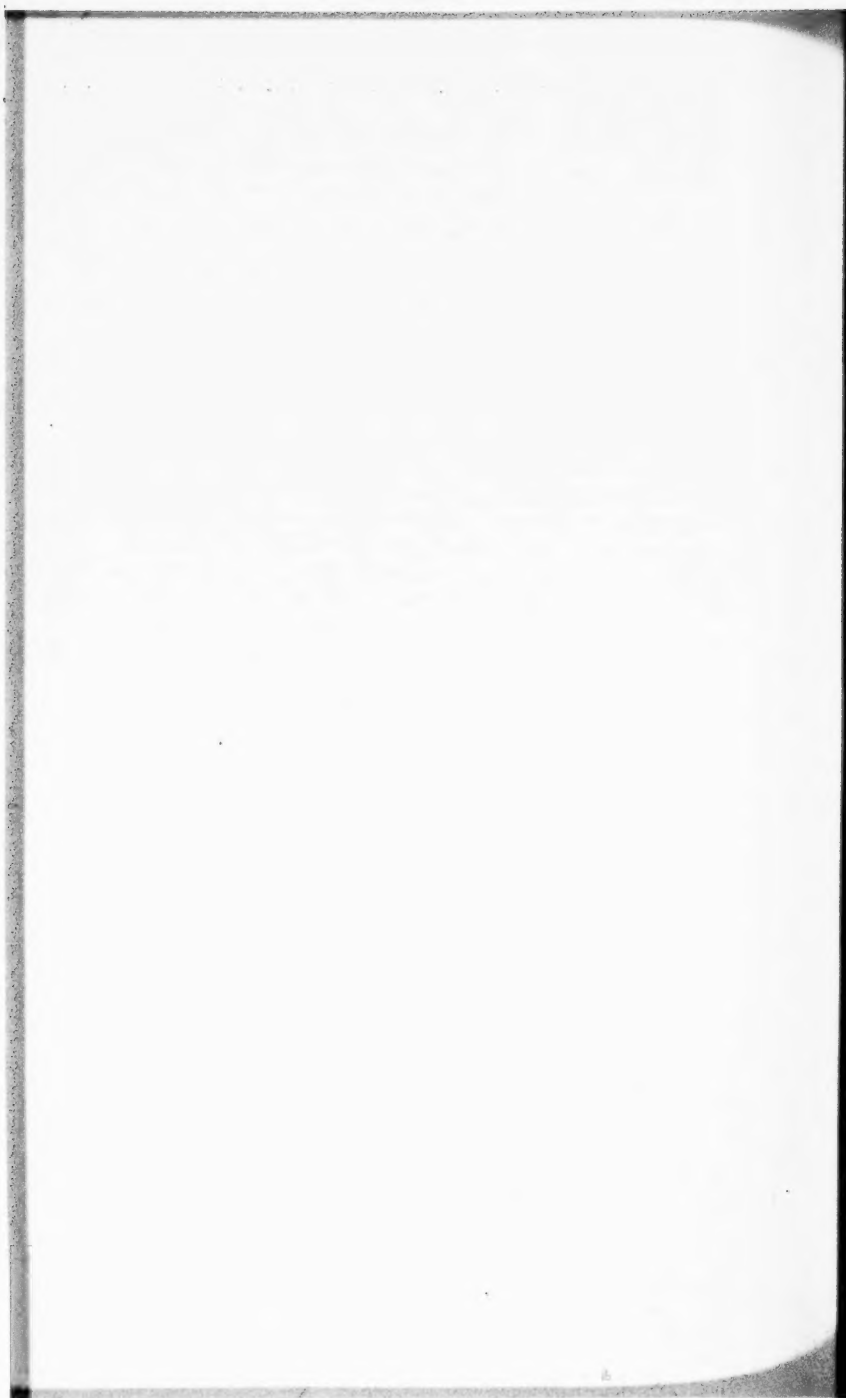
But the decree below, as it respects the pier commenced in 1872, and the piers completed in 1880 and 1881, marked 1, 2, and 3, near Chicago River, and the pier and docks be-

tween and in front of Twelfth and Sixteenth streets, is modified so as to direct the court below to order such investigation to be made as may enable it to determine whether those piers erected by the company, by virtue of its riparian proprietorship of lots formerly constituting part of section ten, extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake; and, if it be determined upon such investigation that such piers, or any of them, do not extend beyond such point, then that the title and possession of the railroad company to such piers shall be affirmed by the court; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers, to the excess ascertained, to be abated and removed, or that other proceedings relating thereto be taken on the application of the State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock, constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability, and to affirm the title and possession of the company if they do not extend beyond such point, and, if they do extend beyond such point, to order the abatement and removal of the excess, or that other proceedings relating thereto be taken on application of the State as may be authorized by law.

Opinion.

Except as modified in the particulars mentioned, the decree in each of the three cases on appeal must be affirmed, with costs against the railroad company; and it is so ordered.

Mr. Justice Shiras, with whom concurred Mr. Justice Gray and Mr. Justice Brown, dissenting.



3-1 In the Circuit Court of the United States, in and for the Northern District of Illinois, Northern Division.

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

Wednesday, April twelfth, A. D. 1893.

Present: Honorable Peter S. Grosscup, District Judge.

People of the State of Illinois et al.	}	In Chancery.
18502 vs.		
Illinois Central Railroad Company et al.		

On motion of John G. Miller, solicitor for the city of Chicago, it is ordered that the mandate of the United States Supreme Court in the above entitled cause be filed.

3-2 MANDATE.

United States of America, ss:

The President of the United States of America.

To the Honorable the Judges of the Circuit Court of the United States for the Northern District of Illinois, Greeting: (Seal.)

Whereas, lately in the Circuit Court of the United States for the Northern District of Illinois before you, or some of you, in a cause between The People of the State of Illinois, Complainants, and The Illinois Central Railroad Company, The United States of America and The City of Chicago, Defendants in Bill, and The City of Chicago, Complainant, and The People of the State of Illinois, The Illinois Central Railroad Company and The United States of America, Defendants in Cross-Bill, wherein the decree of the said Circuit Court, entered in said cause on the 24th day of September, A. D. 1888, is in the following words, viz:

"This cause coming on to be heard upon the amended information of The People of the State of Illinois on the relation of George Hunt, Attorney General, filed March 6, 1886, as further amended by leave of Court June 21, 1887, and on that day refiled as amended; the separate answer of the defendant The Illinois Central Railroad Company to said

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

amended information, filed May 3, 1886, the amendments of said Company to its said answer, filed by way of answer to the amendments to said amended information June 30, 1887; the separate answer of the defendant The City of Chicago, filed June 1, 1886, as amended by information filed by leave of Court June 20, 1887, and the replications to said answers the cross-bill of the city of Chicago, filed June 20, A. D. 3-3 1887, by leave of court; the separate answer of the Illinois Central Railroad Company to said cross-bill, filed June 29, 1887; the replication to said answer (The People of the State of Illinois, by George Hunt, their attorney general, having also filed their separate answer to said cross-bill herein June 29, 1887, and the city its replication thereto), and also upon the several stipulations made and the evidence taken and filed herein, and the court having heard W. G. Ewing, district attorney of the United States for the Northern District of Illinois, counsel for the United States of America, duly thereunto authorized, as well as The People of the State of Illinois, by George Hunt, their attorney general, and by E. B. McCagg, Williams & Thompson, J. K. Edsall and A. S. Bradley, their counsel; The Illinois Central Railroad Company, by B. F. Ayer, John N. Jewett and Lyman Trumbull, its counsel, and The City of Chicago, by Melville W. Fuller, its counsel in this behalf, and said cause having been taken under advisement, and the court being now duly advised in the premises—

“It is found adjudged that—saving the rights to be hereinafter defined, of the Illinois Central Railroad Company—(1) the fee of all the streets, avenues, alleys and public grounds shown upon the plat of the southwest fractional quarter of section ten, township twenty-nine north, range fourteen east, of the third principal meridian, known as Fort Dearborn Addition to Chicago, acknowledged June 7, 1839, by Matthew Birchard, solicitor of the General Land Office and agent of the War Department of the United States, and duly filed the same for record in the recorder's office of Cook county, Illinois (a plat of map of which addition as it appears in the opinion filed herein February 23, 1888, is made part hereof by reference), including the entire open space part of fractional section 10, on the shore of the lake, as the same appears on the said plat of Fort Dearborn Addition south of the north line of Randolph street extended to the lake, and north of the sectional line between sections ten

and fifteen, upon a part of which open space are the words 'Public ground forever to remain vacant of buildings,' and (2) the fee of that part of fractional section fifteen, township twenty-nine north, range fourteen east, of the third principal meridian, as the same appears on the plat or map of the canal commissioners' subdivision of said fractional section fifteen, acknowledged June 13, 1836, filed for record June 18, 1836, and duly recorded July 20, 1836, in book H, page 230, in the recorder's office of Cook county, Illinois (a copy whereof is made part of said opinion and is made by reference part hereof), bounded on the north by sectional line between fractional sections ten and fifteen, on the west by the west line of Michigan avenue, on the east by Lake Michigan, and on the south by the north line extended eastwardly of block twenty-three of said subdivision, and by that part of the sectional line between fractional sections fifteen and twenty-two which lies between the west line of block twenty-three and the east line of block twenty-one, each extended southwardly, and (3) the fee of all the made or reclaimed ground as it now exists and as it appears on the Morehouse map (made part of said opinion and made part hereof by reference) east of Michigan avenue and between the north line of Randolph street extended to Lake Michigan, and the north line of block twenty-three extended to said lake, including the grounds upon which rest the tracks and breakwater constructed by the said company between said last-named lines on the lake front and including the small triangular piece of ground east of the present tracks and breakwater of said company, south of Randolph street, between the north lines of Washington and Monroe streets extended to the lake, and marked on the Morehouse map with the words 'built 1873,' are all in the city of Chicago in trust for public use.

"That the said city of Chicago, as riparian owner of said grounds on the east or lake front of said city, between the north line of Randolph street and the north line of said block twenty-three, each of said lines being produced to Lake Michigan, and in virtue of authority to that end conferred by its charter, has, among other powers, the power to establish, construct, erect and keep in repair on said lake front, east of said premises, within the lines last given, and in such manner as may be consistent with law, public landing places, wharves, docks and levees, subject, however, in the execution of that power to the authority of the State by legisla-

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

tion to prescribe the lines beyond which piers, docks, wharves and other structures, other than those erected by the general government, may not be extended into the waters of the harbor that are navigable in fact, and to such supervision and control as the United States may rightfully exercise in and over said harbor, and subject also to the enjoyment by the Illinois Central Railroad Company of the rights now to be defined and prescribed.

"And the court doth further find and declare, and it is hereby adjudged and decreed—

"That the Illinois Central Railroad Company is the owner in fee of all the wharves, piers and other structures erected by it in the city of Chicago, east of Michigan avenue, south of Chicago river, and north of the north line of Randolph street extended eastwardly as shown upon said Morehouse map, including the station grounds lying west of the slip C, the pier marked C lying east of slip C, and represented upon the Morehouse map to have been built in 1867, and piers 1, 2 and 3 lying east of pier C last mentioned, and represented upon said map to have been built as follows: pier 1 in 1872 and 1873, pier 2 in 1881, and pier 3 in 1880, and is also entitled to the use, for purposes of its business, of the slips marked on said Morehouse map.

"That said company is likewise the owner in fee of all the wharves, piers and other works made and constructed by it in the city of Chicago, east of its main tracks between the north line of block 23, in fractional section 15 addition to Chicago, and the centre line of Sixteenth street extended, including the pier or line of piling represented upon the said Morehouse map to have been built in 1870, and the station grounds lying west of the said pier and contiguous thereto; also of the wharf or pier projecting into the lake from the grounds last mentioned, and represented upon the said Morehouse map to have been built in 1885, which said wharves, piers and other works so constructed and so far as constructed by the said Illinois Central Railroad Company, as aforesaid, are lawful structures and not encroachments upon the domain of the State of Illinois, or upon the public right of navigation or upon the property interests or estate of the said city of Chicago.

3-7 "That the present occupancy and use by the Illinois Central Railroad Company for purposes of a right of way and not otherwise of two hundred feet in width of ground north of the southern boundary of the open space known as Lake park (the west line of said ground so occupied and used being four hundred feet from and parallel with the west line of Michigan avenue), and its occupancy and use for like purposes and not otherwise of the two triangular pieces of ground immediately south of Randolph street and east of the company's present tracks, one of them being east of the breakwater and marked 'built 1873,' is in accordance with law and the provisions of certain ordinances of the city of Chicago, to wit: an ordinance entitled 'An ordinance concerning the Illinois Central Railroad Company,' passed June 14, 1852, an ordinance or resolution passed by the common council of said city September 10, 1855, granting said company permission to curve its tracks westwardly of the line fixed by said ordinance of June 14, 1852, extending and carrying said tracks northwesterly as they approach its passenger house, and an ordinance passed September 15, 1856, granting to said company additional right of way to enable it to approach and use its station grounds north of Randolph street and Chicago river.

"That said company is entitled to the use in perpetuity of the said two hundred feet in width and said two triangular pieces of ground last described for purposes of a right of way and not otherwise, subject to such regulations in respect to said use as the city of Chicago or the State of Illinois may legally establish, and subject to the terms and conditions of said ordinances of 1852, 1855 and 1856, except that if the city could, consistently with the charter of said company, grant to it, as by said ordinance of 1852, it assumed to do, the 3-8 right to use for its line of road and other works necessary to protect the same from the lake a width of three hundred feet from the southern boundary of Lake park near Twelfth street to the northern line of Randolph street, the said company has elected to appropriate for such purposes a width of only two hundred feet, and cannot now, without further license from proper public authority, appropriate a greater width.

"That the bridge or viaduct constructed by the Illinois Central Railroad Company over its tracks and grounds at the

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

Mandate U. S. Supreme Court, ordered filed April 23, 1893.

foot of Randolph street, with the approaches thereto, is a lawful structure, having been erected in conformity to the provisions of the ordinance legally passed by the city council of Chicago July 12, 1880, entitled 'An ordinance extending Randolph street to Lake Michigan and providing for viaduct over tracks of Illinois Central Railroad.

"And the court doth further find and declare, and it is hereby adjudged and decreed, that the third section of the act of the general assembly of the State of Illinois, passed over the governor's veto April 16, 1869, entitled 'An act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago, so far, at least, as it confirms 'the right of the Illinois Central Railroad Company under the grant from the State in its charter, * * * and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands submerged or otherwise, lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue in fractional 3-9 sections ten and fifteen,' is a valid and constitutional exercise of legislative power and legalizes as well what was done by said company prior to April 16, 1869, in the way of filling in the lake and constructing wharves, piers, tracks, warehouses and other works between the Chicago river and the north line of Randolph street extended eastwardly as its occupancy and use for way ground of the two said triangular pieces of ground immediately south of Randolph street; and that the subsequent act of the general assembly of Illinois, passed April 15, 1873, in so far as it sought by repealing the said act of April 15, 1869, to revoke or annul said confirmatory clause of the last-named act, was void under the constitution both of Illinois and of the United States; but the court is of opinion, and so adjudges and decrees, that the said act of April 15, 1873, repealing said act of April 16, 1869, had the effect in law to withdraw from said railroad company the grant to it, its successors and assigns, by the third section of said act of April 15, 1869, of 'all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile and between the south line of the pier extended eastwardly and a line extended east-

Mandate U. S. Supreme Court, ordered filed April 20, 1863.

ward from the south line of lot twenty-one south of and near to the round-house and machine shops of said company, in the south division of said city of Chicago; and to reinvest the State with such right and title as it had in and to said premises prior to the passage of said act of April 16, 1869; and said repealing act had the further effect to withdraw 3-10 from said company the additional power conferred upon it by said act of April 16, 1869, to improve the harbor of Chicago, and to engage in the business of constructing and maintaining wharves, piers and docks for the benefit of commerce and navigation generally, and not in the prosecution of its business, as defined and limited by its original charter, and the laws of the State, saving, however, to said company as unaffected by said repeal the right to hold and use as part of its way ground or right of way, and not otherwise, the before mentioned part of the submerged lands east of its breakwater between Monroe and Washington streets extended eastwardly, which was reclaimed from the lake in 1873, presumably upon the faith of the act of 1869, and is marked on the Morehouse map with the words 'built 1873.'

"It is further ordered, adjudged and decreed that the defendant, The Illinois Central Railroad Company, be, and it is hereby perpetually enjoined and restrained from erecting structures or in filling with earth or other materials any portion of the bed of Lake Michiagn as it now exists and as shown on said Morehouse map east or in front of said fractional sections ten and fifteen—that is, east or in front of the grounds now occupied and used by it between Chicago river and the north line of Randolph street extended eastwardly, or east or in front of the grounds now occupied and used by it between the north line of Randolph and the centre line of Sixteenth street, each extended eastwardly, except that said company may complete the slip or basin already commenced immediately north of Sixteenth street extended, with a wharf on each side of it not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load and unload and upon which tracks of the company may be laid; and it is considered and ordered by the court that the Illinois Central Railroad and the city of Chicago each pay one-half of the costs herein, and that execution issue therefor.

"JOHN M. HARLAN,
"Associate Justice of the Supreme Court
"of the United States."

Mandate U. S. Supreme Court, ordered filed April 20, 1869.

As by the inspection of the transcript of the record of the said Circuit Court, which was brought into the Supreme Court of the United States by virtue of separate appeals taken by The Illinois Central Railroad Company, The City of Chicago, and The People of the State of Illinois, agreeably to the act of congress in such case made and provided fully and at large appears.

And whereas, in the present term of October in the year of our Lord one thousand eight hundred and ninety-two, the said cause came on to be heard before the said Supreme Court on the said transcript of record on separate appeals and was argued by counsel.

On consideration whereof, it is now here ordered, adjudged and decreed by this court that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan which the third section of the act of April 16, 1869, purported to grant to the Illinois Central Railroad Company, and that the act of April 15, 1873, repealing the same is valid and effective for the purpose of restoring 3-12 to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16, 1869.

But the decree below, as it respects the pier commenced in 1872 and the piers completed in 1880 and 1881, marked 1, 2 and 3, near Chicago river, and the pier and docks between and in front of Twelfth and Sixteenth streets, is modified so as to direct the court below to order such investigation to be made as may enable it to determine whether those piers erected by the company by virtue of its riparian proprietorship of lots formerly constituting part of section ten, extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake; and, if it be determined upon such investigation that said piers, or any of them, do not extend beyond such point, then that the title and possession of the railroad company to such piers shall be affirmed by the court; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers to the excess ascertained to be abated and removed, or that other proceedings relating thereto to be taken on the application of the

State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability and to affirm the title and possession of the company if they do not extend beyond such point, and if they do extend beyond such point to order the abatement and removal of the excess, 3-13 or that other proceedings relating thereto be taken on application of the State as may be authorized by law. Except as modified in the particulars mentioned, the decree in each of the three cases on appeal must be affirmed with costs against the railroad company; and that the said the City of Chicago and The People of the State of Illinois recover against the said the Illinois Central Railroad Company for their costs herein expended, and have execution therefor.

December 5, 1892.

You, therefore, are hereby commanded that such execution and further proceedings be had in said cause in conformity with the opinion and decree of this court as according to right and justice and the laws of the United States ought to be had, the said appeals notwithstanding.

Witness, the Honorable Melville W. Fuller, Chief Justice of the United States, the tenth day of April in the year of our Lord one thousand eight hundred and ninety-three.

JAMES H. McKENNEY,

Clerk of the Supreme Court of the United States.

Costs of City of Chicago and People of State of Illinois paid by the Illinois Central R. R. Co.

(Endorsed): 18502 20610 595.

Supreme Court of the United States.

Nos. (419.)

(608.) October Term, 1892.

(609.)

The Illinois Central R. R. Co.

vs.

The People of the State of Illinois
et al.

Mandate U. S. Supreme Court, ordered filed April 20, 1893.

mandate U. S. Supreme Court, ordered filed April 20, 1893.

3-14

The City of Chicago

vs.

The Illinois Central R. R. Co. et al.

The People of the State of Illinois

vs.

The Illinois Central R. R. Co. et al.

Mandate.

Filed Apr. 12, 1893. S. W. Burnham, Clerk.

3-15 And on the seventeenth day of April, A. D. 1893, came the city of Chicago, by its counsel, and filed in said clerk's office its notice of motion in said above entitled cause, which said notice of motion is in the words and figures following, to wit:

NOTICE OF MOTION.

Office of motion, filed April 17, 1893.

In the Circuit Court of the United States for the Northern District of Illinois, in Equity.

The People of the State of Illinois

vs.

Illinois Central Railroad Co. et al.

Bill.

City of Chicago

vs.

Illinois Central Railroad Co. et al.

Cross-Bill.

To the Illinois Central Railroad Company and B. F. Ayer, Esq., its Solicitor.

Gentlemen: Please take notice that on Monday, April 17th, A. D. 1893, at the opening of the court on that day at ten o'clock a. m., or as soon thereafter as counsel can be heard, we shall move the court, before his Honor Judge Grosscup, for an order upon the mandate of the Supreme Court of the United States re-docketing such case in said

Order Upon Mandate.

529

Circuit Court and for such further order upon said mandate as may be proper in the premises.

Yours, etc.,

JOHN S. MILLER,
Corporation Counsel for the City of Chicago.

Copy of above served on me April 15, '93. B. F. Ayer.

(Endorsed:) Filed Apr. 17, 1893. S. W. Burnham,
clerk.

Not of motion
filed April 1
1893.

3-16 In the Circuit Court of the United States in and for the
Northern District of Illinois, Northern Division.

Order, April 17,
1893.

Monday, April seventeenth, A. D. 1893.

Present: Hon. Peter S. Grosscup, district judge.

The People of the State of Illinois	}	In Chancery. Amended Information.
18502 vs.		
The Illinois Central Railroad Company,		
The United States of America, and The City of Chicago,		

and

The City of Chicago	}	Cross-Bill.
vs.		
The People of the State of Illinois, The		
Illinois Central Railroad Company, and The United States of America.		

The mandate of the Supreme Court of the United States in the cases lately pending in said Supreme Court of the United States, in one of which the Illinois Central Railroad Company was appellant and The People of the State of Illinois et al. were appellees, and in another of which The City of Chicago was appellant and The Illinois Central Company et al. were appellees, and in the other of which The People of the State of Illinois were appellants and The Illinois Central Railroad Company et al. were appellees; which were the separate appeals taken by the Illinois Central

Order, filed April
25, 1893.

3-17 Railroad Company, The City of Chicago and The People of the State of Illinois, respectively, from the decree, record and proceedings of this court in said suit and cross suit first above entitled and the opinion of said Supreme Court being here now presented to the court, and being this day filed here in accordance with the practice in such cases; and it appearing from said mandate and the judgment of the Supreme Court of the United States upon said appeals contained in said mandate that it was by said Supreme Court ordered, adjudged and decreed that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan, which the third section of the act of April 16th, 1869, purported to grant to the Illinois Central Railroad Company, and that the act of April 15th, 1873, repealing the same is valid and effective for the purpose of restoring to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16th, 1869, and that the decree entered in this court in said cause on the 24th day of December, 1888, as it respects the pier commenced in 1872, and the piers completed in 1880 and 1881 marked 1, 2 and 3, near Chicago river, in the said decree of this court referred to, and the pier and docks between and in front of Twelfth and Sixteenth streets, is modified so as to direct this court to order such investigation to be made as may enable it to determine whether those piers erected by the company by virtue of its riparian proprietorship of lots formerly constituting part of section (10) extend into the lake beyond the point of practicable navigability, having reference to the manner in which commerce in vessels is conducted on 3-18 the lake; and, if it be determined upon such investigation that said piers, or any of them, do not extend beyond such point, then that the title and possession of the railroad company to said piers shall be affirmed by the court; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then that this court shall direct the said pier or piers to the excess ascertained to be abated and removed, or that other proceedings relating thereto be taken on the application of the State, as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability, and

to affirm the title and possession of the company if they do not extend beyond such point, and if they do extend beyond such point, to order the abatement and removal of the excess, or that other proceedings relating thereto be taken on application of the State as may be authorized by law; and that, except as modified in the particulars mentioned, the decree in each of the three cases on appeal be affirmed, with costs against the railroad company.

Order, filed April
17, 1891.

And it further appearing to this court from the said mandate that this court was and is thereby commanded that such execution and further proceedings be had in said cause in conformity with the opinion and decree of the Supreme Court of the United States, as according to right and justice and the laws of the United States ought to be had, the said appeals, notwithstanding reference to said mandate, decree and opinion of said Supreme Court, being made for greater certainty.

3-19 It is therefore on motion of John S. Miller, counsel to the corporation of the city of Chicago, ordered that said cause be, and the same is, redocketed in this court; and that such cause stand for such execution and further proceedings to be herein had in said cause in conformity with the opinion and decree of the said Supreme Court, as according to right and justice and the laws of the United States ought to be had, the said appeals notwithstanding, as commanded by said mandate.

3-20 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Order of reference to Master,
October 27, 1893.

Friday, October twenty-seventh, A. D. 1893.

Present: Honorable Peter S. Grosscup, district judge.

The People of the State of Illinois)	
18502 vs.)	In Chancery.
Illinois Central Railroad Company et al.)	

Now come the parties by their solicitors, and on motion B. F. Ayer, solicitor for the defendant, it is ordered that this cause be, and it is hereby, referred to E. B. Sherman, master in chancery, to take testimony and report the same.

Order, April 11,
1895.

3-21 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Thursday, April eleventh, 1895.

Present: Honorable John W. Showalter, circuit judge.

The People of the State of Illinois)
18502 vs.) In Chancery.
Illinois Central Railroad Company.)

And now comes E. B. Sherman, one of the masters in chancery of this court, and prays the court to fix his compensation for taking proofs on behalf of the complainant in said cause, The People of the State of Illinois, to the date of entry hereof, and the court, being advised in the premises, fixes the compensation of said master for taking said proofs at the sum of three hundred and eighty-seven dollars and twenty cents (\$387.20), and it is ordered that said sum be paid to said master by said complainant.

Testimony of Wil-
liam L. Mar-
shall.

3-22 In the Circuit Court of the United States for the Northern District of Illinois, Northern Division.

The People of the State of Illinois)
vs.)
Illinois Central Railroad Company.)

November 1, 1894.

Met pursuant to agreement.

Present: Messrs. Hamline, Scott & Lord, solicitors for complainants, and Messrs. B. F. Ayer and J. N. Jewett, solicitors for defendant.

WILLIAM L. MARSHALL, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline:

Q. What is your name, age, residence and occupation?

A. William L. Marshall, Chicago; occupation, Captain of Engineers, United States Army. My residence here is merely temporary.

Q. State whether or not the United States War Department has a Department of Engineering here in Chicago?

Evidence before
Master.

A. They have an engineering district in the vicinity of Chicago, including Chicago, in charge of myself, under the Chief of Engineers, United States Army.

Q. Headquarters in Chicago?

A. Headquarters in Chicago; yes, sir.

Q. And such has been the case for the last twenty-five years, has it not?

A. For at least that long; I think probably for the last sixty years.

Q. Who were your predecessors in that office?

A. My immediate predecessor was Major Thomas H. Handbury, and previous to him was Major W. H. H. Bonvaud; before him was Major Lydecker; before him was Major D. C. Houston, or George L. Gillespie, I don't remember what the order was.

Q. Do you recollect whether Major Houston was in charge of the engineering department that you have spoken of, about the year 1871?

A. I think he was in charge here from 1869 to 1872 or 1873.

Q. Then Major Lydecker took charge?

A. I think Colonel Graham was before Lydecker.

Q. How long have you been in charge of this department?

A. Since the first day of April, 1888.

Q. State whether or not your duties have made you familiar with the shores of Lake Michigan in the immediate neighborhood of and in Chicago?

A. Yes, sir; I have been very familiar with the shores of the lake since I have been here, but not very familiar with the old shores of Lake Michigan.

Q. Will you please state briefly your connection with engineering on land or water prior to your coming here?

A. I have been in the engineering service ever since the 11th day of June, 1868.

Q. United States Army?

A. United States Army; yes, sir.

Q. And what has been your experience, whereabouts engaged, in what ways?

A. I was three years at the engineering school at West Point, post graduate course; I was one year assistant professor of natural and experimental philosophy at the military

Evidence before
Master.

academy at West Point; four years on explorations and surveys in the western territories, which brings me up to 1876, and after that I have been entirely engaged in hydraulic engineering of rivers and harbors of the United States—five years on the southern rivers from the Altamaha, in Georgia across to the Mississippi, including the Mississippi river; nine years there, and ten years up here on the lake harbors.

Q. I will ask you whether or not you know Brevet Col. J. B. Wheeler, Major Corps of Engineers, U. S. Army?

A. I do not know him personally; I know he was an officer of engineers, stationed at one time here in charge of this harbor.

Q. About 1869?

A. About that time, just previous; he was afterwards professor of engineering at West Point, and I think he left here, the Milwaukee and Chicago district, to go there; appointed from here.

Q. Calling your attention to that map which you hold in your hands, which bears the title Chicago Harbor and Bar, Illinois Survey, and made between the 20th of July and the 20th of August, 1869, under the direction of Brevet Col. J. B. Wheeler, Major Corps of U. S. Engineers, U. S. A., by William T. Casgrain, C. E., assisted by Leon Soulerin and Henry H. Swinburne, drawn by G. A. M. Liljencrantz; I will ask you whether or not you know G. A. M. Liljencrantz?

A. Yes, sir; he is an assistant engineer under me, now here in Chicago.

Q. Do you know how long he has been here?

A. I think he has been here certainly 15 years; 25 years, I suppose.

Q. In the employ of the United States War Department?

A. Yes, sir; employed here on this harbor work.

Q. Now, I will ask you to state where this map which I hold in my hand came from?

A. The blue print is from my office and is a copy of the tracing that was furnished my predecessors from the Engineering Department at Washington. The original of this map is in the office of the chief engineer at Washington, and this blue print was made from the copy of that original.

Q. This blue print is a blue print of a copy on file in your office here in Chicago, which in turn is a copy of the original on file in the War Department at Washington?

A. Yes, sir; Engineer Bureau of the War Department.

Q. You have had large experience in connection with maps and surveys?

A. Yes, sir; very extensive.

Q. I will ask you if you know whether or not William T. Casgrain was a civil engineer?

A. Yes, sir; he was a civil engineer; he is here in Chicago now I believe; he is a contractor now.

Q. Do you know whether or not he was in the United Army employ, of the War Department?

A. He was a civil engineer employed by the War Department, was employed for a good many years.

Q. About the year 1869?

A. Yes, sir; about that time, and before and after it.

Q. I observe a note on here which reads as follows: "The line of sounding from the old water works inlet to the Chicago lake tunnel crib is taken from the map of E. Chesbrough, Esq., city engineer survey of 1865 and soundings reduced to the present stage of water." I will ask you what that means, "reduced to the present stage of water."

A. I can't explain it any further than it is explained there; means what the stage of water between the 20th of July and the 20th of August, 1869, was. The soundings were transferred from one map and made to correspond—corrected for the differences in stages of the lake levels at the times of the two surveys. That map appears to be partially from the original survey, and to some extent a complication from a city survey.

Q. The compilation from the city survey as marked on that map, refers to this line of soundings?

A. That is all.

Q. Running from the water works crib over here to the water works?

A. That is it, that one line.

Q. Is there any portion of the map a compilation, or is it all an original survey?

A. I know nothing personally about that map, nothing whatever about the map, except just so far as is contained upon the face of it.

Q. And it is one of the records of your office?

A. It is one of the records of my office, and I know nothing further of it than what appears on the map itself and among the records of the office.

Q. It is also a copy of a map on file in the War Department at Washington?

Evidence before
Master.

A. Yes, sir. We usually send the original of our maps to the Chief of Engineers, and retain in our office the copies only; we keep very few original maps in our office.

Q. As a result of your experience with maps, and as an engineer, and from what appears upon the face of this map, what is the interpretation of the figures on this map running out in lines into the lake, for instance, 11-5, 11-7 and 12?

A. Means that is the depth of water corresponding to the stage of water as indicated by the water gauge named in this note to the map. That the lake was so many feet and so many inches deep when the gauge read such a reading noted on this map above or below the zero of the gauge.

Q. And these figures here indicate the depth of the water at the point where figures are placed at the time the soundings were taken?

A. At the point where the figures were taken and corresponding to a definite reading of the gauge, which reading is given on the face of the map.

Mr. Ayer: Do you mean that these figures do not express the actual depth of the water, only the relative depth at the time?

A. It expresses the actual depth on the lake. When the water is at a certain mark on the gauge, it means a certain depth of water below that mark on the gauge, and this gauge is made—for instance, if the gauge indicated one foot above extreme low water, then these soundings are one foot deeper than they would be if the lake was—

Mr. Hamline: Is there anything on this map to indicate what that gauge was?

A. Yes, the map indicates, but I doubt very much whether you would be able to identify that gauge—find where the zero of that gauge is, except by other evidence.

Q. What is the gauge referred to?

A. The soundings are in feet and tenths of a foot. They are reduced to the plane of the low water gauge placed in the light house crib which stands 2.12 feet below the southwest iron column of the light house. The mean reading of the gauge at the time of the survey was 2.95 feet.

Q. What does that 2.95 mean?

A. Means 2.85 feet above the zero of the gauge.

Q. It is supposed that the zero is the mean water mark?

A. No; that may be entirely arbitrary; we don't know what the zero of that gauge was; the only way to find out is from these remarks, but I don't believe they can be identified

now, simply because that light house has been removed and this iron column and everything else has been taken away just this past summer, from the harbor. The points to which this gauge refers have been removed by the government.

Q. These soundings, whatever was the zero of the gauge, indicate the depth of the water at the place where the figures are placed upon the map?

A. Yes, sir.

Q. Below the zero of that gauge?

A. No, sir; below the plane of the water at the time the survey was made.

Q. That plane of water was 2.95—

A. Marked 2.95 on that gauge; that gauge has been removed and we don't know what the low water and what the high water is on that gauge. I don't believe you will be able to find it except by getting some other evidence as to what the height of the water was at that date.

Q. Tell, for the benefit of counsel and myself—tell us all about this gauge, what part it plays in engineering?

A. This water gauge is just simply a staff marked with feet and subdivisions of a foot. They seem in this case to have been put up almost at random, as far as the zero goes, and the object of it simply was to see whether the level water varied during the interval when the soundings were taken. For instance, the lake is subject to fluctuations; it may be a foot higher one day than it is the next, due to winds or barometric pressure and other things, and this gauge is placed there to be read during the progress of the survey when soundings were made, to see what changes took place in the water level, so the soundings could all be put upon the map referring to the same water level. I think that is all the gauge was intended for. Doesn't seem to be any continuous record made of that gauge in my office, and I infer it was just simply a gauge for temporary purposes.

Q. A memorandum here under latitude and longitude: center of base iron light house north latitude, so many degrees, longitude so many degrees; that is the location of this gauge?

A. That is the location of the gauge, and that is just for the purpose of allowing these maps to be placed upon any standard maps, locating it on the face of the earth, that is all.

Q. Assuming that the gauge at zero marked the condition of what is known as city datum, Chicag, I will first ask you, are you familiar with the city datum, city of Chicago?

Evidence before
Master.

Evidence before
Master.

A. I have made the plane the basis for levels—plane of reference for levels.

Q. What does it mean?

A. It means taken as the plane which corresponds with the low water level of Lake Michigan in 1847; the low water of 1847, which was established, I believe, by the Canal Commissioners when they were about to construct the Illinois and Michigan canal; they wanted some plane of reference and they decided on the low water plane, as near as they could, of Lake Michigan in 1847 and they adopted that as the plane of reference for that class, and it has been adopted since as the plane of reference for all engineering works about the city of Chicago, and is called city datum.

Q. Assuming that the zero of this level was at city datum, are these measurements the depths below a point two feet and ninety-five hundredths above city zero or below city zero?

A. Above. That is what I infer, I don't know whether they read upwards from the zero at the top of the gauge or at the bottom, it is very often put at the top. For instance, the the United States Engineering Department zero, plane of reference—if you want levels on Lake Michigan, is placed at high water of 1839, instead of low water of 1847, we estimate downward, and from city datum it is estimated upward, and these two planes are five feet apart.

Q. So that if zero was based upon city datum, these soundings are the depth of the water over the land submerged from the level two feet and ninety-five hundredths above that zero point?

A. Yes, sir.

Q. State whether or not the War Department is in the practice of having soundings taken by the Engineering Department of the United States army in connection with the supervision of harbor improvements and other internal improvements of the United States?

Mr. Ayer. I object to that question as immaterial.

A. I will have to answer it generally, that engineers of the War Department try to keep themselves informed of the state of the harbors and works over which they have control, and therefore must necessarily take frequent soundings and make examinations of these harbors and works.

Q. State if you have learned from your own personal knowledge or from the records of your office that said department has taken soundings from time to time in the harbor in front of the city of Chicago?

A. Yes, sir; frequently.

Q. State whether or not those soundings were taken off onto maps and marked with figures on said maps, in the same manner that they appear on these maps?

Mr. Ayer: I object to that question, and object also to the last preceding question before this for the same reason, as immaterial and incompetent.

A. This map shows the general method of keeping records of these surveys.

Q. I will ask you to state what the meaning of the figures 12 and the period after the figures 12 and that figure 5 is?

A. That at that point which is marked by that period that the water was 12 feet and 5 tenths below the plane of reference noted upon that map.

Q. That the land under the water—

A. The bottom of the lake was 12 and five-tenths feet below the surface of the lake at that point when the lake stood at the mark indicated on that gauge.

Q. And the same is true of all these other figures?

A. All others, yes, sir. The period which you see between the figures answers two purposes, first, it shows the exact location of the sounding, and in the next place it is a decimal point, the figures to the right of it mean tenths of a foot and to the left means whole feet.

Mr. Hamline: I offer this map in evidence as complainant's Exhibit A, being blue print previously identified, entitled Chicago Harbor and Bar, Illinois Survey, made between the 20th of July and the 20th of August, 1869, under the direction of Bvt. Col. J. B. Wheeler, Corps of Engineers, U. S. A., and also all the marks and designations upon the map.

Mr. Ayer: I wish to reserve an objection to that map on the ground that it does not furnish competent evidence of the depth of the water at the places where these several soundings appear to have been made, but do not object to its being a copy, and not being certified by the War Department.

Q. I will ask you to look at the map which I now hand you, which is entitled Map of Chicago Harbor, Survey of July, August and September, 1865, of Col. Cram, and ask you to state where that map came from?

A. This is a blue print copy of a map which is in my office; the United States' Engineers' Office for the Chicago District

Q. Who was that made by?

A. I don't know anything about the map, than it is an

Evidence before
Master.

Evidence before
Master.

official map in the records of my office which purports to be made by Col. Cram.

Q. State whether or not you know Col. Cram to have been an officer in the United States Army?

A. Yes, sir, he was, and I think he was one of the first officers stationed here in Chicago on these lake improvements.

Q. In connection with the Chicago harbor improvements?

A. Yes, sir; one of the early officers.

Q. What are the figures out over the waters of Lake Michigan there; what do they indicate on that map?

A. They indicate the depth of the water, I presume, at the time of the survey. There is no note whatever accompanying this map, giving any information as to what plane these water depths were referred to. I think they are simply the soundings as they were actually taken when the map was made.

Q. I observe marks on the map, shore line, 1864, and shore line, 1865; state if you know what that line is placed upon that map to indicate?

A. That map was evidently made to show the effects of the north pier in Chicago harbor, in causing an accretion of sand on the north side of it, and those lines indicate how far this accretion had progressed in 1864 at a certain date, and how far again at the end of 1865. The map is made simply to show the progress of this accretion on the north side of the Chicago harbor pier. The accretion takes place on the south end of Lake Michigan, always on the north side.

Q. I observe on the lower portion of this map a memorandum, Illinois Central Railroad Company breakwater, and east of it a heavily shaded line; I will ask you to state what that indicates on that map?

A. Simply the shore line at the time the map was made.

Q. At the extreme right hand corner of the tracing I observe two lines leading from the Chicago river south, and then to the extreme right hand corner turning abruptly to the west, and inside of those two lines is a shaded line; state what those lines indicate on that map?

A. I have no means whatever of knowing what those lines indicates, I take them to be simply the—only from what the signs used on these maps are, I should take it to indicate a pile breakwater with part of the area inside of the breakwater between that and the shore line only covered with water.

Q. At the time the map was made?

A. Yes, sir, at the time the map was made.

Q. I will ask you whether or not there is anything on the map to indicate that the soundings were placed upon the map after the map itself was made?

A. I do not know, sir. I do not know whether the soundings were made after the map. We sometimes take maps having the shore lines, and afterwards, if there has been any natural change in the shore lines, make new surveys and put soundings on them, but I don't know whether that map is one of those maps or not. There is nothing on that to show that it is not an original survey, or that the soundings were not made in the year 1865.

Mr. Hamline: I will offer this map in evidence and ask to have it marked as complainants' Exhibit B.

Mr. Ayer: I object to the admission of the map for the reason that it appears to have no relevancy to the question in this case, and it is incompetent evidence to show the depth of the water indicated on the face of the map, but do not object on the ground of its being a copy and not being certified by the War Department.

Q. I now call your attention to this map entitled Chicago Harbor and Bar, Illinois Survey, made in April, 1857, under direction of Brevet Col. J. D. Graham, Major United States Topographical Engineers, Superintending Engineer of Lake Harbor Works, and ask you where that map came from?

A. This came from the United States Engineering Office in Chicago; it is a blue print copy of a map on file in that office.

Q. Do you know whether Col. Graham was a United States engineer?

A. Yes, sir, I know he was another one of the early officers in the Chicago harbor.

Q. He was in charge here about that time?

A. About this time, yes, sir.

Q. I observe on that map, outside of the shore line, some heavily dotted tracings; state, if you know, what they indicate?

A. They indicate the old bar at the mouth of the Chicago river.

Q. And below?

A. And below, yes, sir. The Chicago river used to turn

Evidence bef
Master.

Evidence before
Master.

abruptly, and there was a bar at the mouth and vessels had to go away down below to get out; and those bars have been partially washed out and partially dredged out; out of the way now, but this map shows the old bar across the mouth of the Chincago river.

Q. That map purports to show the sand bars at the mouth of the Chicago river, does it not, at that time?

A. Yes, sir.

Q. And it is marked at the south end of the bar there, south buoy, what would that indicate?

A. That indicates the southern extremity of that bar.

Q. Location of the buoy down there?

A. Yes, sir, I believe all vessels drawing more than nine feet of water had to come that way into the harbor.

Q. I observe on the map at different places, such reading as ten feet curve and twelve feet curve on the outside of the dotted lines; what do they indicate?

A. That indicates where those sand bars would be; cut a line, they would have to cut through those sand bars, be a horizontal level plane passed through them. If you cut those sand bars right by a level plane that line indicates the line that would be cut from the outer surface; any outside of that line would be 12 feet below the water surface, and every point within it would be less than 12 feet; every point outside would be more than 12 feet.

Q. I observe that a great many lines on this map appear to radiate from a line marked Illinois Central Railroad Company's pier; do you know what that indicates?

A. Indicates that the boat containing the sounding party rowed along that line, and the soundings were taken on those radiating lines; they located the range over which the soundings were taken.

Q. There are other straight lines marked on here, 2.20 degrees.

A. That shows the bearings, the angle from the meridian around to this point for the purpose of locating these points if the records should ever be lost, could re-establish them. Azimuth lines are a technical term understood by all astronomers and engineers.

Q. Is the shore line of Lake Michigan at the time the map was made in 1857, set out upon this map?

A. Yes, sir.

Q. And the same is indicated upon the face of the map?

A. All indicated and marked upon the face of the map, shore line of 1857 and some previous years. Evidence
Master.

Q. Everything to the east of that shore line is water?

A. Yes, sir.

Q. Excepting as it may be—?

A. Except so far as breakwaters have been built.

Q. This pier here on the south here, marked—south of the Chicago river, marked United States south pier, and the pier on the north marked United States north pier, are those the same government piers that now exist?

A. The same piers that now exist, except so far as they have been cut through, I believe in one or two instances by the Illinois Central Railroad Company, for their slips; that was done, I suppose, by authority of the Secretary of War, by permit.

Q. You don't know anything about that?

A. I don't know anything about that at all.

Q. The condition of the shore from time to time prior to 1857, is indicated in this map?

A. Yes, sir.

Q. For instance, south of the river here, from survey made November 11, 1853, and on the north of the river a great number of lines marked, lake shore, at different years?

A. Yes, sir.

Q. Those all indicate the line of the shore at the dates given?

A. Yes, sir, they are all transcribed on this map from previous surveys in the office, those lines are brought down to to-day.

Q. That has been the practice ever since the office has been open?

A. Periodically, yes, sir, to show the advance of the shore lines.

Q. These marks that are on here, feet and tenths of feet, outside of the shore line, indicates what?

A. Indicates the depth of the water below certain mark on the tide gauge.

Q. What gauge is referred to here?

A. I don't know; I might probably find out among the records of the office what that gauge was, but on that map it is reduced to a level of 2 and three-tenths on the engineer tide gauge, but what that gauge was I don't know. I may find it, as I say, I may be able to find all these gauges in the office so as to—I can't tell.

Evidence before
Master.

Q. This Exhibit B that I showed you; I don't know that I asked you what those figures out in the water indicate there?

A. I think I answered that. There is no reference on that map whatever to those soundings, and that just by inference I presume it to be the depth of the water when these surveys were made, irrespective of gauge, just simply the depth of the water as the surveyor found it at the time the survey was made.

Q. These gauges you speak of are merely made for the purpose of establishing the fluctuations of the water?

A. That is the whole purpose of every gauge that is ever made, keeping a record of the fluctuations of the water levels. The first map made by Mr. Casgrain, that is evidently a temporary gauge, simply set there during the progress of the survey, and it is referred to other permanent objects in the immediate vicinity so those levels could be ascertained, but I can't find that there ever were—that the base of that light house ever was referred to any of the Chicago city bench marks so as to give the zero of that gauge, and the light house itself has been subsequently removed, so that if I can't find any record in the office, it is impossible now to tell what level that was referred to. This map, though, was evidently referred to a fixed tide gauge which was observed, I suppose, for several years, and I may be able to find the data with reference to the zero of this gauge. It evidently wasn't just simply a temporary gauge, because it says the soundings were reduced to 2.3 on the tide gauge, which shows it was referred to some gauge which had been fixed before, and read, and I think it is possible to find out what the zero of that gauge was; I am referring now to Col. Graham's map of 1857.

Q. Whatever that zero was, the bottom of the lake at the point the figure was placed, was so many feet and inches below the zero?

A. Below the figures 2 and 5 tenths on that gauge, that zero may have been at extreme low water; the lake fluctuates five feet.

Q. Over a given number of years?

A. Over a long period of years there is a fluctuation of five feet. Of course you can find out from the records in those years how much above or below Lake Michigan was in this month, Chicago city datum.

Q. Have you a record of that at your office?

A. The record is published in the annual reports of the Chief of Engineers, and it is in his office, records of water levels in Lake Michigan.

Q. Does he give the records of all years before that?

A. Yes, sir.

Q. So if we get the last one we would get them all?

A. No, they are published every five years; every five years the entire record is published, and all those soundings the water can be—the levels can be established within six inches any month in the last forty years on Lake Michigan, irrespective of these gauges.

Mr. Hamline: I will introduce this map in evidence as complainants' Exhibit C.

Mr. Aver: I make the same objection as to the introduction of the other maps. I do not object to these maps because they are copies, for I understand Captain Marshall to say that they are copies of originals in his office and are also on file at Washington, but my objections are on other grounds, but do not object on the ground of it being a copy and not being certified by War Department.

Q. I call your attention to this map, entitled Chicago harbor, Illinois, and survey made between the 20th of July and the 20th of August, 1869, soundings taken April 12, 1871, under the direction of Major D. C. Houston, Corps of Engineers, U. S. A., by W. T. Casgrain.

A. This is the same map that you put in first. This map is evidently a map taken to compare the depth of water on these two dates. The first map has already been put in evidence, taken July 20 and August 20, 1869. That is the first map that we put in evidence here; just took the shore line of that as kind of a skeleton and made a new map of April 12, 1871, on this, simply for comparison. Take these two together and you can see just the change in the waters of the lake during those years.

Q. Where did that map come from?

A. This is printed directly from the tracing of the original map which is in my office, furnished by the Chief of Engineers to one of my predecessors.

Q. And that original you have in your office?

A. This is taken directly from that original, printed from that tracing.

Q. The one you have in your office is taken from where?

A. The archives of the office of the Chief Engineer in

Evidence before
Master.

Washington; I have those both. These maps we have so many copies of simply because the fire in 1871 destroyed a great many maps in our office, some originals and some copies, and after the office was re-established we had all these old maps copied, in the office of the Chief of Engineers, in their records, and copies filed here to preserve to us abundant records.

Q. In other words, before the fire, when the Engineer Department made a map they would send it on to headquarters in Washington?

A. Yes, sir, this was the practice; whenever the map was such that it would probably be published by the War Department, the original map was sent. Whenever it was not needed in this office the original map was sent. We would make a tracing of these maps, and if it was such that we would want many duplicates we would keep the tracing and send the originals to Washington. Most of the originals were sent to Washington, and I preserve tracings from which I can make duplicates any time I want them.

Q. Those maps made before the fire were sent right to Washington, or copies of which were sent on to Washington, were published at Washington?

A. Either published or filed in the Engineer's Department. Have to send every reading and term, and every survey has to go on file in the Engineers Department.

Q. On the contrary, such of the originals or copies that were in Chicago at the time of the fire in 1871, were all destroyed?

A. Most of them were destroyed, and that is the reason why these copies were made and sent by the Engineers Department, to restore the records of the office; this is one of those copies.

Q. Those soundings were taken prior to the fire?

A. Yes, sir; taken in April.

Q. I will ask you whether or not that map also shows the shore line of 1869, same as modified by the memorandum on the map, and also the soundings of 1871?

A. Yes, sir; shows the shore line of 1869; the shore line is copied directly from the map already offered in evidence, and the soundings of 1871 are placed on the old shore line, to show the changes.

Q. And they are marked in the same way, with the figures and decimals?

A. Yes, sir.

Q. As showing the depth over the point where the figures are placed? Evidence best Master.

A. Yes, sir. I wish to state with reference to that map, it is simply made for the purpose of establishing the dock lines, by a board of engineers, and it is not a full tracing even of the map of 1869. There is only enough information on there for the Chief of Engineers to understand the report of that board, which was the first board which established the dock lines of Chicago harbor.

Mr. Hamline: I offer this map in evidence as complainants' exhibit D.

Mr. Ayer: I reserve the same objections as made to the other maps.

Q. I call your attention to this map, which is entitled, "Sketch showing soundings south of present outer harbor at Chicago, Illinois," taken under direction of Captain G. J. Lydecker, Corps of Engineers, U. S. A., by G. A. M. Liljencrantz, Assistant Engineer, May, 1878, and ask you where that map came from?

A. Copy of a map on file in my office—United States Engineers office in Chicago—made by Mr. Liljencrantz in May, 1878, under the direction of Captain Lydecker.

Q. Captain Lydecker was then in charge of this harbor?

A. Yes, sir.

Q. And the soundings are set out in this map?

A. Yes, sir.

Q. How do you read those soundings?

A. They read in feet and tenths.

Q. With reference to what?

A. These are referred to the harbor gauge here, which is one foot above Chicago city datum.

Q. At that time?

A. Yes, sir. Well, I state that—I don't know it, but we have been in the habit of ever since Major Lydecker was in charge here to refer soundings on maps to that gauge. Keep the harbor gauge here one foot above Chicago city datum, and then these harbor works have been built and channels dredged with reference to that gauge.

Q. In other words, city datum being the low water mark of 1847, this would indicate the depth of the water over the land?

A. When the lake stood at one foot above extreme low water.

Evidence before
Master.

Q. Above low water of 1847?

A. Yes, sir.

Q. Mr. Liljencrantz is in your office now?

A. He is in my office now, yes, sir.

Q. He made those soundings?

A. He made them, and he made the map, yes, sir. You can get at those soundings exactly.

Q. By getting him up here?

A. By getting him up here, and no doubt all the original note books and everything from which that map was made are in my office.

Q. I observe on here a line marked, 15 feet curve running from the right of the map to the left of the map, what does that indicate?

A. That indicates the line along which all the soundings are 15 feet, and all on the right of it are less and on the left of it are more. It is a line cutting the sand bar by a horizontal plane, 15 feet below the government harbor datum.

Q. Everything on that map, except as otherwise indicated, east of this line is 15 feet or over?

A. Yes, sir.

Q. And west, 15 feet and under?

A. Yes, sir.

Q. And indicated on the map?

A. Yes, sir.

Q. I observe a line here marking apparently a couple of railroad tracks and outside of that line a wavy line; what is that wavy line?

A. That is the shore line.

Q. At the time the map was made?

A. Yes, sir, where the water stands against the bank at that time.

Q. At 12th street, I observe, or north of what is marked 12th street, I observe a couple of enclosed lines close together outside of the short line, what do they indicate?

A. That conventional sign on all these maps indicates breakwaters, Illinois Central breakwater.

Q. South of that, running east of south, I observe a couple of dotted lines enclosed; what is that enclosed?

A. Piles.

Q. Breakwater not completed there?

A. That indicates, as I infer, a pile breakwater, while the other indicates a crib; that is the way I would take it.

Q. I observe a line as the next east to this breakwater you speak of marked 12 foot curve; what does that indicate? Evidence before Master.

A. That indicates the same as—similar to what 15-foot did, all shoreward of that line is less than 12 feet and all lake-wards exceeds 12 feet.

Q. Everything east of that 12-foot curve is 12 foot or over, and everything west is 12 foot or under?

A. Everything west less, and everything east more than 12 feet.

Q. I observe here on this map beginning where the 1-2-foot curve interrupts, running southeast, a couple of parallel lines enclosed; what does that indicate?

A. Indicates a crib, breakwater, which the Illinois Central and these railroads very commonly build.

Q. And on this map what is between that crib breakwater and this shore line?

A. I think it is water, shallow depth, formed by the water washing over that breakwater washing the sand away.

Q. In other words, no land is indicated between the shore line and this crib?

A. No, sir; not sufficient depth to allow them to sound, I should say. That was less depth than would allow the skiff to go over it; made by the water washing over it.

Q. Nothing on this map to indicate what the depth is inside?

A. No, sir. I am very confident that if it was deep enough to allow of a row boat it would have been sounded.

Q. There are no figures on here less than 12 feet?

A. No, sir.

Q. Outside of this 12-foot curve?

A. No, sir.

Q. I observe inside of the 12-foot curve north of 12th street, there are some figures?

A. Yes, sir.

Q. South of that the curve is not continued?

A. No, sir.

Q. And nothing to indicate what the depth of the water was?

A. No, sir; no indication what, at that time, it was, except on the south end of the breakwater here it shows 8 feet of water.

Q. I observe east of what is marked on this map Illinois Central Railroad Company's Round House and Machine Shops, two parallel double rows; what do they indicate?

Evidence before
Master.

A. One indicates an old—I think—I don't know what it indicates, but from the usual signs employed on these maps I should say one indicated an imperfect pile dike and the other one a strong one. I should think one old pile dike had been partially destroyed, and a new one built inside of it.

Q. The imperfect is on the east of the more perfect one?

A. Yes, sir; I think that is a pile dike built and ice, or something of that sort knocked it full of holes, and they simply built a new one behind it.

Q. And south of these two parallel lines I observe a couple of lines running out into the lake east and west.

A. That is a pier, a pile pier running out there; silt washing device, something of that sort which is very common down there on the whole lake front.

Mr. Hamline: I offer this map in evidence and ask that it be marked Complainants' Exhibit E.

Mr. Ayer: The same objections are made to this map as to the others.

Q. As a result of your experience on the waters of Lake Michigan, what do you call navigable water?

A. Any water that can be navigated by the vessels engaged in carrying on commerce between the states, or between different ports in the state.

Q. Do you know the tonnage that a vessel must carry in order to be enrolled?

A. No, sir.

Q. Do you know the depth of draft of vessels engaged in commerce between the states?

A. On Lake Michigan?

Q. Yes.

A. Quite well, yes. Range from the Illinois and Michigan Canal about five feet, I think about the lightest depth, up to 18 feet of water can get in most of the harbors; that is about the extreme range, from 5 to 18 feet. There are some light passenger steamboats, and some that are enrolled that draw less than that; see a good many of those little excursion boats around Chicago here. The boats that are carrying freight. I should think the Illinois and Michigan Canal boats, are the smallest, lightest draft, and the heavy, 18 feet, heavy steel boats that carry iron ore down here to Calumet harbor are about the largest that traverse this part of the lake.

Q. Do you know the depth of water at the LaSalle street tunnel, Chicago river? Evidence before Master.

A. Yes, sir; it is 18 feet at the center point, 17.9 below Chicago city datum at the center of the city tunnel, but it is a very narrow channel there, there is a channel of only about between 16 and 17 feet below Chicago city datum over that tunnel. That, of course, limits navigability of Chicago river.

Q. Do you know the depth of water at the Washington street tunnel?

A. About the same.

Q. It has been lowered in the last 3 or 4 years?

A. Yes, sir; a little bit.

Q. The tunnel was somewhat higher?

A. I think so; the tunnels are about the same, don't think any of them exceed 18 feet; so far as I know. I know none of them have a channel 18 feet deep at extreme low water, they all slope down towards the center and rise towards the shore.

Q. You are engaged now in constructing the Hennepin Canal, are you not?

A. Yes, sir.

Q. That canal runs from the Mississippi river east to Lake Michigan by way of what?

A. No, sir; runs from the great bend in the Illinois river over to the Mississippi river at Rock Island; simply cuts across the "V." makes a cut-off.

Q. What is the depth of that canal?

A. Seven feet.

Q. What is the depth of the Illinois and Michigan canal?

A. Six; five feet navigation.

Q. Do you know the depth of the canal at the Soo?

A. About 14 and 7-10 feet now over the miter sills, the old locks, but they are building a new lock over there which will give 21 feet over the miter sills.

Q. Do you know how long it has been 14 feet?

A. During the summer months for the last three or four years during the dry season we have had, but the lock has been in operation since 1881, 13 years.

Q. All the commerce going into Lake Superior goes through that canal?

A. Yes, sir; and limited by that depth.

Q. How is the depth of the canal at St. Clair Flats?

A. That is 20 feet now; just completed a 20-foot channel.

Evidence before
Master.

Q. How deep was the channel before that time?

A. Fifteen and a fraction, and 16.

Q. How long had it been that way prior to the change to 20, how many years?

A. I don't remember. Before my memory, away back there in Col. Cram's time, he built it. It was first 9 feet, then increased to 12, then to 16.

Q. And all the commerce between the lakes west of Huron and the lakes east of the city of Detroit pass through that channel?

A. Well, everything that passed through Lake Erie up into Lake Huron had to pass through that channel. Up to within the last two years we would say that the navigation was limited to 15 or 15 1-2 feet through the Detroit river to the St. Clair Flats, and less than 15 into the outlet of Lake Superior, but within two years navigation will be 20 feet deep except in Chicago; it won't be anything more here.

Q. I suppose, Captain, there are a great variety of vessels now engaged in commerce between the lakes that take less than five feet of water?

A. Oh, yes; little pleasure yachts, launches, and all little sailing vessels, and rafts, and saw logs, and so on.

Q. Scows?

A. Scows, yes, sir.

Q. Mississippi river steamers?

A. Not on the great lakes; no, sir.

Q. I would like to ask you whether you understand it to be a fact that the gauge you speak of, by which these various measurements of depth are known on all these maps shown you, except that of Col. Cram, and prior to the map of Major Lydecker, were temporary gauges, established at the time of each survey, which was the fixed or mean surface line from which to measure the depth of the water, independent of the temporary fluctuations of the water at the time of each survey?

A. I don't know anything about those gauges. I know since 1870, 1868 to 1870, somewhere along there there has been kept a permanent gauge record, but before that I imagine that all these gauges were temporary gauges, but all of them were referred to some fixed bench mark on shore, from which could be obtained their zero, and I have no doubt even on the records their zero is kept in my office, but the fire destroyed all our records of that kind; I can't find anything about it. To all intents and purposes these gauges were tem-

porary; we have no record of them anywhere prior to the fire of 1871.

Evidence before
Master.

Q. Supposing you were going to make a survey to-day, you had no permanent gauge, you would endeavor to fix a gauge, the zero mark of which would correspond to some well established point, like city datum of the city of Chicago?

A. Certainly.

Q. Then you would allow for reasonable fluctuations?

Mr. Jewett: Suppose you let him tell what he would do.

Q. Supposing you were going to make a survey to-day?

A. Just simply take a graduated board and put it up with zero below the lowest water level, probably a foot below Chicago city datum, then I would level up to the nearest bench mark established in the vicinity by the city to show what was the correction between the zero of my gauge and the Chicago city datum, and then after I had made all my soundings I would reduce them down to a single level, level of the Chicago city datum. I would use a gauge temporarily, of course, for the purposes of that survey.

Q. So that the actual sounding you would make would be reduced down to—

A. Reduced to some fixed plane.

Q. Fixed plane?

A. Yes, sir; some fixed plane.

Q. Intended to show depth of the water?

A. Yes, sir; below that plane, if the water stood at that plane. This map of Mr. Liljencrantz was evidently reduced down to the plane of the United States harbor datum. The other maps were reduced to the certain planes which are mentioned on them, but I can't find out now what those planes were.

Cross-examination by Mr. Ayer.

Q. I understand you to say, Captain, that you know nothing in regard to the details shown upon any of these maps, except from what appears upon the maps themselves?

A. Nothing in the world, sir.

Q. Can you tell us what is the annual fluctuation of the water of the lake here at Chicago?

A. Yes, sir; for thirty years, up to 1890, I have figured that out; it is one and one-tenth feet; a little over one foot and one-tenth of a foot; sometimes fluctuates as much as a foot and a half; that is fluctuation due to something like a tidal wave.

Evidence before
Master.

Q. That is a result of thirty years' observation?

A. Yes, sir.

Q. When you say the fluctuations of the height of water in the lake vary as much as five feet, what do you mean by that?

A. I mean that is the fluctuations that may take place in from seven to fifteen years; that while the water fluctuates maybe a foot and a little over in one year, it may gradually attain a greater height; one year low water and one year a little higher than low water preceding, so the extreme range in thirty years has been five feet.

Q. But the ordinary, annual fluctuation is——

A. Is about a foot and a tenth, and varies from that up to 18 inches.

Q. Are these annual fluctuations that you speak of seasonal changes? Have they any regularity, or extremely irregular?

A. These changes I speak of are very regular, extremely regular; yes, sir. We get those changes by taking monthly means; take three indications each day, and at the end of the month take the mean for the month.

Q. Do they depend upon the seasons?

A. Depend upon the seasons and upon the rain fall; yes, sir. There are other fluctuations which are very rapid.

Q. What is usually the stage of high water?

A. High water is about the middle of August, or first of September, then the low water takes place when the streams are all frozen up, about the middle of February.

Q. How is it in midsummer?

A. Midsummer it is gradually rising by the influx, the flow, or the outflow of the spring floods.

Q. Depends not merely on the rain falls, but on the winds, does it not?

A. No, the annual fluctuations does not. The temporary fluctuation, the diurnal fluctuations, or abnormal fluctuations, depend upon the wind, barometer and a good many other causes.

Q. What do these daily fluctuations amount to?

A. I have seen them as much as five feet since I have been in Chicago.

Q. Five feet in one day?

A. Yes, sir; 24 hours. I think it was two years ago when a great many boats were dragged out of Chicago harbor and

we had water over the sea wall up there, and tumbled over stones into Potter Palmer's yard in one night.

Evidence before
Master.

Q. Now then, have you any means by which you can give us the actual depth of the water as shown by these soundings on these maps, with reference to any fixed gauge or point?

A. I don't know of any, sir; any way now. There may be some way in existence, but I am not aware of it. Not all maps, I mean prior to 1871; prior to the destruction of our records.

Q. You are familiar with what is called the outer harbor here in Chicago?

A. Yes, sir.

Q. What is the depth of water in that harbor?

A. Varies from 7 or 8 feet up against the Illinois Central, or within a few feet of that, up to 17 feet of water out there at the eastern entrance, the depth below Chicago city datum, but the average depth of the harbor is not over 14 1-2 feet.

Q. But in those places you say it is 17 feet?

A. Yes, sir; that is down near where the old bar, the outer end of the old bar was, right over here by the east entrance, places there where the water is 17 feet.

Q. Depth any different now from what it was or has been at any time for the period since you have been here?

A. I think it is less now than it was when I first came, due to sand drifting in there; haven't done any dredging in that harbor since I came here.

Q. Haven't you done any?

A. No, sir; the World's Fair people did some along there, but the government has done none.

Q. I understand you to say there has been a gradual deposit inside the harbor?

A. Yes, I think there has been a gradual deposit for the last 6 or 7 years in that harbor.

Q. So the depth of the water has diminished?

A. Yes, sir; it was dredged out before I came here; Major Houston had it done.

Q. Dredged out after the inside breakwater was constructed?

A. I say it was dredged out after part of the exterior breakwater was constructed.

Q. Been no appropriation available for dredging in the outer harbor since you have been here?

A. Been an appropriation for it, but I have declined to

Evidence before
Master.

expend any money on it at all until they make some use of the harbor.

Q. Why not?

A. Vessels don't need it as a harbor of refuge, as there are no wharves or docks along the fronts, and there is no reason to use it for commercial purposes.

Q. Ever been any wharves constructed, until those were constructed by the Illinois Central?

A. That is all.

Q. There are no facilities for using that harbor for commercial purposes?

A. No, sir; I don't think it can be used for any commercial purposes by any of the lake-going vessels except by using the Illinois Central docks and wharves.

Q. In what kind of vessels is the commerce of the lake now conducted, especially the freight business?

A. The lumber business and stone, business of that kind is still carried in a good large measure by sailing vessels and barges, but the main commerce of the lakes is carried on by large metal boats, steamers.

Q. Iron steamers?

A. Iron steamers and steel steamers.

Q. What is the tonnage of those vessels?

A. It varies from 1,000 to 1,200 tons up to 3,000 tons.

Q. What has been the tendency of late years, to increase or reduce the size?

A. Very materially increased. I suppose the average tonnage coming into Chicago here has—average of the tonnage in here has very nearly doubled.

Q. That is, the size of the vessel?

A. Yes, sir; average tonnage of the vessels coming into Chicago has doubled in ten years. The tonnage hasn't diminished; they are carrying about the same tonnage a year, but the number of vessels has decreased 33 per cent.; not over 15,000 coming into Chicago, and when I came here there were 22,000.

Q. What is the draft of these large sized propellers that they use now in lake commerce?

A. Those that come to Chicago are limited by the tunnels; they can't draw more than 16 feet, but a great many of them even that come here are built so they can be loaded down to 18 or 19 feet.

Q. How has this greater depth been procured for the channel of the St. Clair Flats?

Evidence before
Master.

A. By excavation.

Q. By whom?

A. United States Government.

Q. What was the object of that excavation?

A. Get greater depth for these boats to pass.

Q. For the accommodation of commerce?

A. Yes, sir.

Q. How long has that process been going on?

A. Been going on ever since the canal was built; I think since 1836, somewhere along there. It was first dredged only to 9 feet—don't think there was over three feet and a half or four feet of water there originally, and it was dredged out to 9 feet channel, and subsequently 12 feet, and then increased to 16 feet, and now they are just completing a 21-foot channel there.

Q. Any difficulty there now for vessels drawing 18 feet of water sailing from Buffalo to Chicago?

A. Not 18; no, sir, I think not. Twenty foot channel isn't entirely completed through the Detroit river, I don't think, to full width; may be so.

Q. These large vessels that come to Chicago don't come fully loaded? Can't enter the river?

A. There are only four or five vessels that can be loaded much deeper than 16 feet, but there are some built the last year or so which were constructed with the idea that they would have soon a 20-foot channel; those vessels can't get into Chicago river, or if they get in they can't pass some of the bends to get through some of the bridges.

Q. Could they go in light or partially loaded?

A. No, sir; they couldn't get in at all; some of the larger boats can't get above Taylor street.

Q. There are no commercial facilities for loading and unloading such vessels unless they are furnished outside of Chicago harbor?

A. No, sir; no facilities for it unless it can be done at the mouth of the harbor. There is 18 or 20 feet at the mouth of the harbor against the ends of some of the Illinois Central piers and some of the Peshtigo docks; beyond that there are no facilities for carrying on commerce by these large vessels in Chicago harbor. Chicago is a third class port.

Q. Third class in what respect?

A. Depth of water.

Q. In point of commercial business done here?

A. Second in the United States.

Evidence before
Master.

Re-direct examination by Mr. Hamline.

Q. Don't you know, as a matter of fact, that ever since you came here the Illinois Central claim to own all the territory between Chicago river on the north and Park row on the south?

Mr. Ayer: I object to the question as incompetent and immaterial.

The Master: Answer, subject to the objection.

A. None of the claims have been made to me, and I don't know except from common hearsay, anything about the Illinois Central claims.

Q. Don't you know that is the reason why the harbor hasn't been utilized?

A. I know the reason why it hasn't been utilized, just simply on account of litigation of some kind and character which I haven't had time to follow up, has been in progress, but I don't know anything about the litigation, the causes of it, or what it is about or anything about it.

Q. You say within the last ten years the tonnage—the average tonnage of the individual vessel has been doubled?

A. Well, I can hardly say that much, but I think it has very materially increased, probably 30 per cent. I think probably increased to the extent of the diminution in the number of vessels.

Q. That has increased the draft of the vessels?

A. Yes, sir; draft and length of the vessels.

Q. These 18 foot boats you talk about are very limited in number, are they not?

A. Yes, sir; only four or five of them. I don't know how many of them, I don't know but four or five, probably half a dozen of them come to this port, some of them go down to the Illinois Steel Company at South Chicago for the reason they can't use this harbor here. They have some heavy iron carriers there.

Q. Isn't the South Chicago port where the iron mills are situated?

A. Yes, sir; they are situated there.

Q. Any boat coming here engaged in the iron ore business from Lake Superior wouldn't think of entering the Chicago harbor?

A. No, the largest boat can be used in the iron trade where they can't be used in Chicago in the grain trade.

Q. But the iron trade you speak of is the iron trade in connection with the South Chicago mills?

A. Certainly must be.

Q. When you speak about the level of the lake changing five feet in one day; was not that a day when the wind was blowing heavily from the east and piling up water on the west shore of Lake Michigan?

A. I don't know; it occurred at night, and I simply saw the results of it the next morning; I don't know what the conditions were of that fluctuation.

Q. Had been a storm, hadn't there?

A. No, I don't remember the conditions now at all; I simply remember the facts that impressed themselves on my mind with reference to that tremendous tidal wave that happened that night. I was at that time engaged with the Lincoln Park Commissioners, and I had occasion to go up there, and there the wave had washed over the sea wall 12 feet high, had broken the piling down and thrown some of it over into Potter Palmer's yard, and it was a very extraordinary exhibition to me, and I remember those facts, that is all.

Q. You said you knew nothing about these maps excepting what appears on the face of them. Do you mean to be understood as saying that you had no knowledge as a result of your engineering experience that would enable you to interpret these maps?

A. No, I take the maps as correct; I believe in them, that they are all truly reliable and so on, but I have no personal knowledge of the accuracy of the data or even how to get at certain parts of the data—how to interpret some of the data.

A. As a matter of fact, the work done in your department by yourself and your predecessors is recorded in the shape of plats, is it not?

A. Yes, sir.

Q. And you have no reason to doubt that these records that have been introduced in evidence are accurate, have you?

A. They are accurate and correct; yes, sir; I have no doubt of that at all.

Q. These are records the government relies on in doing its work?

A. Yes, sir; they did at that time. Of course now they have more recent information. I can say the field notes and so on from which those maps are made are no longer in existence; they have been burned up, and I can't get at them,

Evidence before
Master.

but as far as the plane is concerned and everything else, the maps are accurate and correct.

Q. Outside of the iron trade, these heavy draft boats you speak of are engaged in carrying grain, are they not?

A. I don't think any heavy draft boats come in here at all; they can't get in. Most of the heavy boats that come here are engaged in the iron trade, and some of them in general merchandise. A good deal of general merchandise comes through these lines that run in connection with railroads; Lackawanna and New York Central and other roads.

Q. You spoke about the sand filling in the harbor, as a matter of fact—

A. Not altogether sand; a good deal of mud and sewage deposits and so on goes through the mouth there whenever we have a little rain, and sediment of various kinds settles there.

Q. As a matter of fact, the only places in the harbor between the river and Park row on the south, where any sand could drift in, are three in number, are they not?

A. Yes, sir; only three entrances right near the mouth of the river—

Q. That is right in front of the Illinois Central dock?

A. Yes, sir. The main place where it comes in there is the east entrance. A good deal of sand is swept around the outer end of the north pier, and then is thrown around in an eddy below and comes in the east entrance.

Q. That is about Congress street?

A. Van Buren; right opposite Van Buren street.

Q. And this sand that is swept into the harbor from the north entrance comes around the north pier?

A. Yes, sir.

Q. With the current running from the north, and is swept into the harbor through the opening in front of the Illinois Central docks?

A. Most of it that goes in there comes from sedimentary deposits from the river during high water. For instance, two years ago the river was high for a long while and deposited a great deal of sediment at the mouth of the river; there is a narrow channel there now 16 or 17 feet wide.

Q. Only a 16 or 17 foot channel there?

A. That is all; 16 foot channel there now is quite narrow at the north entrance, filled in mostly by mud and sewage deposits and so on from the Chicago river at high water.

Q. And wherever the south pier might terminate, wheth-

er it terminated where it does now, or should terminate 1,000 feet farther into the shore, that sediment would come out the river and wash over to the south immediately upon the dropping off of the south pier, would it not?

A. I don't understand, exactly. Of course, after the north shore—after that annual increment that takes place there, is built out so as to get a position of equilibrium as far as it will go east, of course the sand will be swept around the north pier of the Chicago harbor.

Q. Sewage comes down the Chicago river and is confined by the north and south banks of the river?

A. Of course when it gets down there part of it will flow out to the north entrance into the outer basin, and the other part of it will go on through the only channel into the lake, and be deposited over a large area.

Q. If the south pier should be extended out further, that would prevent this sediment from getting into the harbor?

A. Certainly, and close up that entrance to the harbor and make the sediment go out into the lake.

Q. And on the contrary, if the south pier didn't go out as far as it does by 1,000 feet, then that sewage coming down the river would be released at that point?

A. Heavy parts of it; yes, sir; be pushed along the bottom.

Adjourned to Friday, November 2, 1894, at 10 o'clock a. m.

November 2, 1894.

Met pursuant to adjournment.

Present as before.

Mr. Hamline: I introduce in evidence, or refer to as being in evidence, the testimony of Gustave H. Carlson, on pages 434 to 440 inclusive of the printed record, 780-792 of original record, and also the maps referred to therein and introduced in evidence as complainant's Exhibits 13 and 14.

I also introduce in evidence, or refer to so much of the affidavit of Col. R. B. Mason as is found on pages 282 and 283 of the printed record and the first paragraph on page 284, terminating with the words "similarly reclaimed," being page 519 to end of said paragraph, page 522 of original record.

Evidence before
Master.

Evidence before
Master.

HORACE C. ALEXANDER, a witness called on behalf of complainant, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. Horace C. Alexander; I am a civil engineer and superintendent of Lincoln Park.

Q. Of the city of Chicago?

A. Yes, sir.

Q. How long have you been a civil engineer?

A. Well, about 12 years since I finished the course; been practicing civil engineering about 16 years.

Q. What was your business in the year 1887?

A. I was assistant engineer in the Department of Public Works.

Q. City of Chicago?

A. City of Chicago.

Q. State whether or not you ever made a survey of property and water in the immediate neighborhood of 16th street in the year 1887.

A. Yes, sir.

Q. What was the date of that survey?

A. That was May 12th, I believe, 1887.

Q. What was the property and water you surveyed?

A. Well, it had reference to the property between the south line of 21—I don't remember the entire description of the property.

Q. South line of lot 21?

A. Yes, between that and north line of 16th street.

Q. Will you describe what were the natural features or ornamental features of that territory as you found it on that date?

A. Well, the breakwater had been extended into the lake some distance out, forming a sort a bay and——

Q. What breakwater do you refer to?

A. At that time a breakwater was under construction.

Q. Leading from what point to what point?

A. On the south line of lot 21, it was about 383 feet from the shore to the breakwater that was being constructed.

Q. How far was it along the south line of lot 21 from the shore line to the west line of the right of way of the Illinois Central railroad?

A. About 204 feet.

Q. Between the shore line and this breakwater which was in the process of construction, what intervened?

A. There was an old breakwater in there which ran approximately parallel to the line of the railroad, and about 188 feet east of the west line of the right of way on this line of lot 21.

Q. Between this breakwater and the shore line and the new breakwater then being constructed, what intervened, land or water?

A. Well, taking it——

Q. Along the south line of lot 21?

A. Taking where this old breakwater intersected with the south line of lot 21, there was a distance from that point to the shore, to the water's edge, of 16 feet.

Q. East?

A. East.

Q. Between that point and the new breakwater which was being constructed, what intervened, water or land?

A. Water.

Q. And state whether or not you found any piles being driven into the water at that time?

A. About 383 feet east of the shore line there were piles being driven in the form of a breakwater.

Q. Between those piles and the shore line had any start been made to drive any pile or piles?

A. Well, there had been some piles in there, I don't recall just what—my recollection is they were more guide piles than anything else, either reference piles or piles from which they had attached guy ropes to the pile driver.

Mr. Ayer: Put in for temporary purposes?

A. Probably.

Q. Can you state what direction this old line of piling you speak of, took?

A. Well, it ran from this point of intersection I speak of on the south line of lot 21, and 128 feet east of the west line of the right of way it ran to a point on the north line of 16th street 173 feet east of the west line of the right of way, running in pretty near a parallel direction to the right of way.

Q. State whether or not it was prolonged farther south.

A. It was.

Q. I will ask you whether or not you found any line of piling east of this last named line you have spoken of; if so, where?

A. There was some old piers out there about 200 feet

Evidence before
Master.

east of the shore line, east of this old breakwater on the north line of 16th street.

Q. The piers submerged or above the water?

A. I think they were partially submerged.

Q. Intervening between this partially submerged pier and the line of breakwater you have described, was there a line of breakwater parallel with this last named line of breakwater and some 25 feet east thereof?

A. Yes, sir.

Q. What kind of breakwater was that?

A. My recollection is that all of that along there was of the old style of breakwater, of piles, and had been filled with stones.

Q. Did that extend north of 16th street?

A. Yes.

Q. State how far—or, rather, did it extend any considerable distance, or did it terminate shortly after it passed 16th street?

A. My recollection is it extended a good portion of the distance to the south line of lot 21, probably half the distance.

Q. Now, what do you find between this last breakwater and the breakwater 25 feet west of it, land or water?

A. At 16th street it was land.

Q. All the way?

A. Well, I think the shore varies there some, that between that point and the south line of lot 21 it went inside of the railroad, that is, the water came inside of the pier.

Q. That is the west of the west line of piling?

A. Yes, that is my recollection.

Q. This breakwater that you first spoke of as being in the process of construction, about where did that begin on the north, with reference to what natural object?

A. Producing the south line of lot 21 into the lake and intersecting this work, it left about 98 feet south of that line that was partially constructed, and at that time was being filled with stone; nearly all filled with stone, and then about 80 feet more that was not completed sufficiently to—that is about 80 feet, of course, that had to be estimated, wasn't in a completed condition so as to go over it and measure it.

Q. State whether or not men were engaged in driving piles at that time?

Mr. Ayer: I don't see the relevancy of this. I don't see

that this examination so far is at all relevant to the subject of inquiry, and therefore I object to it.

Evidence
Master.

A. On that day I don't think any piles were being driven; the city had ordered the work stopped, I think, the day before, or that day work had been stopped; and police were on the ground to enforce the order.

Mr. Ayer: I object to the testimony, to the answer given by the witness to the last question, and move that the answer be stricken out of the record.

Q. State what direction this line of breakwater and piling you have just spoken of took with reference to the west line of the right of way of the Illinois Central railroad.

A. It was practically parallel.

Q. Did this breakwater extend north of the south line of lot 21?

A. Yes, sir.

Q. And state whether or not it continued north until it struck the shore.

A. It did.

Q. And what was that distance between the shore line that it struck and the south line of lot 21?

A. About 188 feet.

Q. Was that measured from the breakwater that then existed there, that 188 feet, or was it measured from the shore itself?

A. Measured from the shore and about 31 feet more, about to the old breakwater.

Q. Projected south of the shore line?

A. Yes.

Q. Did you make a sketch of that territory down there as the result of your survey?

A. Yes, sir.

Q. I will ask you whether or not that is the sketch? (Handing witness paper.)

A. Yes, sir.

Q. I will ask you what intervened between the shore line to the north of the south line of lot 21, and the south line of lot 21, land or water?

A. Water.

Q. Did you mark on your plat an outline of the shore line as it existed at that time?

A. Yes, sir.

Q. I will ask you whether or not you also made upon that plat the configuration of the shore line of Lake Michigan

Evidence before
Plaster.

east of the west line of the Illinois Central right of way, and with reference to the old line of the old west line of break-water that you testified about?

A. As far south as 16th street.

Q. Some little distance south?

A. Well, it was not as accurately located south as it was from there north.

Q. I will ask you if you have made a copy of this plat or map you have testified about?

A. Yes, sir; I had it made in my office.

Q. Have you it with you?

A. I have.

Mr. Hamline: I now offer this plat in evidence, and with the consent of counsel I have had made by Mr. Alexander an exact copy of it, the original being attached to a bill filed in the Circuit Court of Cook county, being part of the files of said Circuit Court. If counsel consent I will leave the copy in evidence in lieu of the original, as complainant's Exhibit F.

Mr. Ayer: I have no objection to the substitution of the copy for the original, but I object to the map on the ground that it is irrelevant.

Q. You were at that time a member of the engineering department of the city of Chicago, as I understand?

A. Yes, sir.

Q. And did you see any policemen down there that day?

A. Yes, sir.

Q. What were they doing?

Mr. Ayer: I object to that question.

A. They were simply stationed there to prevent further work on the pile driving.

Q. Do you know who was doing the pile driving?

A. No, sir.

Q. Calling your attention to this map, I will ask you whether or not—what the memorandum thereon, 90 feet, the 90 with a dash over it, indicates?

A. That is 90 feet.

Q. And what does that 90 feet indicate?

A. Indicates where the old line of piling east of the west line of the right of way of the Michigan Central; that is, the distance extended north of the south line of 16th street before it reached the shore line.

Q. From what?

A. That is the distance from the south line of 16th street to the shore line on the line of that piling.

Q. And north of that distance those marked—

A. A distance of 90 feet from this shore line to the shore line where it again crosses the line of the piling.

Q. And what became of the shore line in the intervening distance?

A. Well, the water extended westerly on the inside of the piling.

Q. State if you know which of the waving lines that you have marked upon that map indicated the shore line of Lake Michigan as you found it?

A. The westerly and north line.

Q. What do the other wavy lines indicate?

A. Simply conventional signs to show water.

Q. I observe on this map you have placed figures, 150 feet.

A. That indicates distance from the last measured point where the shore line crosses the line of the piling and the south line of lot 21 on the line of the old piling.

Q. I observe on the plat a little square structure near the south line of lot 21, marked "shed." State what you found there that day at that point.

Mr. Ayer: I object to that question.

A. There was a stake and flag there which was on the line of that lot 21.

Q. State whether or not you did find a shed there that day.

A. I did.

Q. A short distance south of the south line of lot 21?

A. Yes, sir.

Q. State whether or not there was any structure or piles in Lake Michigan south of the east line of breakwater which was in the process of construction, as you have indicated upon that plat.

A. On the line of this breakwater under construction, and 98 feet south from the line of lot 21, was about 80 feet of pile work there that had been driven.

Q. Was anything south of that visible?

A. Not on that line that I recall.

Q. Now I will ask you what was visible in the waters of Lake Michigan at that time, along the line of 16th street produced east?

Evidence before
Master.

A. About 200 feet east was a submerged crib of break-water.

Q. And how much of it was visible?

A. I don't recall how much of it was visible.

Q. Any considerable amount?

A. The fact of its being marked submerged, would indicate that there was very little of it visible.

Q. And east of that point was there anything visible in the waters of Lake Michigan?

A. I don't think there was anything east of that.

Cross-examination by Mr. Ayer.

Q. There seems to be represented on this map a line of piles on or near the shore, extending from the south line of lot 21 southerly south of 16th street; what was the condition of those piles at that time?

A. I don't recall just the absolute condition; I don't think they were in a very good condition, or in just a moderately fair condition.

Q. Were not those piles apparently very old, and do you know whether they afforded protection to the shore against the inroads of the lake at that point?

A. Well, I don't think they were of such a character that they would afford very good protection from the storms.

Q. Now on this map there is represented what is called a line of piling; do I understand you to say that there existed there an old line of piling along that same line, or near it?

A. Yes, it is marked there old pier, just north of that.

Q. Had that old pier, that portion of the pier which you marked on the map, of the pier been extended further south or southeast?

A. It had been extended in the manner as indicated on this plat.

Q. By a new line of piling?

A. Yes.

Q. Had there not been an old line of piling or pier work out there in the waters of the lake before that date, before this map was made?

A. There was nothing to indicate it there any farther than what I have shown.

Q. Do you remember the fact that not long before the date referred to by you there had been a severe storm from the northeast which swept away a portion of the breakwater

built by the government in the lake and drove the materials against the protection of the Illinois Central Company along the shore, and carried away a portion of that in this immediate vicinity?

A. No, I am not aware of it. My connection with this, and my attention being attracted to this only on the issuance of the orders for this survey; there may have been.

Q. Is that the only time you ever made any survey in this locality, or was that the first time, rather?

A. Well, I had been down a day or two before and had located the line of lot 21 on complaint of some of the authorities that work was being carried on south of that line.

Mr. Jewett: It was all in connection with this same survey, wasn't it?

A. Well, after I had reported that the work was going on south, then I was sent down to make an accurate survey of the work as it existed.

Q. Who was mayor at this time?

A. Mayor Roche.

Q. Was that the only survey that you ever made?

A. Well, it was the only plat of any survey that I have made, I think.

Q. Have you any notes of any other survey?

A. No, I have not.

Q. I will call your attention to a map contained in the printed record in this case, marked number 768, page 1201, on which is shown the line of piling extending in a straight direction from near the foot of 12th street to the foot of 16th street, apparently some distance from the shore; part of it is marked built in 1870, and the southeast end or portion built in 1882; do you recollect of that line of piling?

A. I think it is the same line of piling shown here.

Q. Shown on your map?

A. Yes, with that that was built later marked on there.

Q. It appears from this map in the printed record to which I have called your attention, that line of piling extended down as far as the south line of 16th street in a straight line, and the southern portion of it is marked, built 1882; do you recollect whether that piling existed then?

A. I am positive it did not exist farther south than my notes indicate it.

Q. Had there not been, before that time, a line of piling which had been carried away or swept away by the storm that had occurred some short time previous?

Evidence before
Master.

Mr. Hamline: I object to the testimony of the witness unless he knows something about it.

Q. I want to ask you whether there had not been at that time a line of piling which had been destroyed or partially destroyed by the storm, on that line?

A. There was nothing on the ground at the time to indicate it or there would have been a record made of it. My recollection is that here was the limit, extent of this pile work. I mean that this point, 51 feet south of the shore line, on this line of breakwater.

Q. At the time you were there, I understand you, there was no adequate protection existing alongside the right of way on the lake side?

A. It was not, of course, what would be called good shore protection.

Q. And this police force was sent there by the direction of the mayor, to prevent any being made, was it?

A. That is, to prevent the work——

Q. Prevent any work being done there?

A. I understood at the time it was only that portion of the work south of the south line of lot 21 that the police were going to have supervision over; that north of lot 21——

Q. I meant to confine my question to that portion of the work south of the south line of lot 21; the police force were directed to prevent any work being done south of the south line of lot 21?

A. That is what I understood the orders were.

Q. Do you know at whose instigation those orders were given?

A. No; it would be either the Mayor or the Commissioner of Public Works.

Q. At whose instigation did the Mayor or the Commissioner of Public Works interfere in this matter?

A. I know nothing about that.

Q. Any politics in it?

A. I don't think so.

Re-direct examination.

Q. Do you know why your attention was directed to that part south of the south line of lot 21?

A. Well, my understanding at that time from my superior officers was, that it was only that portion south of lot 21 that was in controversy.

Mr. Ayer: I object to the last question.

Q. Do you know whether the filling in was going on at the time north of the south line of lot 21?

A. Yes, in this portion where the water is shown north of lot 21.

Q. I believe you stated that when you went down there two or three days after this survey, you did find people filling in there; was that filling in going on south of the south line of lot 21, as well as north?

A. I didn't testify to their filling in when I was down there previous to this time.

Q. Did you find them filling in south of the south line of lot 21 when you first went down?

A. I think they were filling in along in that vicinity, not in any special location, but whenever it was convenient along towards the north end of this bay.

Q. Stretching down towards the south?

A. Well, I don't think it extended very far south.

Q. What were they filling in?

A. Well, it was refuse and the filling that was obtained from digging cellars, &c.

Q. What was the filling in? That is, what was this refuse dumped on?

A. Well, it was dumped along the shores of this water.

Q. Into the water?

A. Well, no; that would be an after consideration.

Q. Do you know who was corporation counsel at that time?

A. I think John S. Miller had then been appointed corporation counsel.

Q. As a matter of fact, wasn't it Judge Horton?

A. Well, now, I don't know.

Re-cross examination.

Q. By whom was this filling being done?

A. Evidently by teamsters.

Q. Were they in the employment of the railroad company?

A. I suppose not.

Mr. Jewett: Dumping ground, wasn't it, for the debris?

A. Yes.

Mr. Hamline: Do you know anything about it?

A. Well, only—not positive information.

Evidence before
Master.

Mr. Ayer: Had you any reason to suppose the railroad company was causing any work of filling to be done there at that time?

A. I only made up my mind to the fact that the company were reaping the benefits of these men using that as a dumping ground.

Q. These men sought some place to deposit the material which they had drawn off the streets and from cellars that had been excavated, I suppose, is that so?

Mr. Hamline: Objected to on the ground that it don't appear that any of this was drawn off the streets.

A. I think that was probably the reason they were dumping there.

Mr. Hamline: I move that the answer be stricken out as not being based on the knowledge of the witness.

Q. Do you know whether this embargo that had been laid by Mayor Roche upon the construction of this protective work down there between the north line of lot 21 and 16th street, was afterwards withdrawn?

A. I don't.

Q. You do know the fact that there was work subsequently done, do you not, down there? Know it was continued?

A. I know this work was continued.

Re-direct examination.

Q. Do you know who claimed the property there at that time, on which the filling was going on?

A. Well, only by inference. It was simply being occupied by the railroad company.

Q. Illinois Central Railroad Company?

A. Yes, sir.

Q. You say that the railroad company reaped the benefit of it; will you describe what you meant by that?

A. Well, by filling in this space between the outer break-water and their railroad tracks, they could utilize that space for buildings, repair shops or anything else they might choose.

Q. Tracks?

A. Yes.

Signatures of all witnesses waived by agreement of counsel, unless hereafter required by counsel on either side.

November 2, 1894.

Evidence before
Master.

JAMES S. DUNHAM, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline:

Q. State your name, residence and occupation.

A. James S. Dunham, 29 Bellevue place, Chicago; I am a tug boat and vessel owner, president of the Dunham Towing and Wrecking Company.

Q. What tug boat company?

A. Dunham Towing and Wrecking Company.

Q. It bears your name?

A. Yes.

Q. How long have you lived in Chicago?

A. Thirty-six years.

Q. What was the year you first came to Chicago?

A. In 1854.

Q. And how long did you remain in Chicago at that time?

A. Three years, till the fall of 1857.

Q. Then where did you go?

A. I went to New Orleans and Mobile.

Q. While you were in Chicago, what was your business?

A. I was first, when I first came here, I was engineer of a tug boat.

Q. And subsequently?

A. And in 1857 was captain of one and part owner, since then I have been an owner, and haven't been on the water myself a great deal.

Q. Can you state what the business of tugs is, in connection with the Chicago harbor?

A. Well, their business is to go out into the lake and tow in vessels and tow them around the harbor and tow them out again.

Q. How general is the practice for boats entering the Chicago harbor to employ tugs to tow them in?

A. All of them, nearly. That is, it was at that time, before the steamers came here. I think now that seven-eighths of them employ tugs. There may be some small ones, small lumber propellers, that do not employ tugs, but all small vessels, barges and seven-eighths of the steamers use tugs.

Q. State what has been the practice with reference to the

Evidence before
Master.

tugs acting as pilots to steer the boats into the Chicago harbor?

A. Well, they as a rule act as pilot; in other words, the vessels always follow the tugs. No pilotage here, of course, but when the tugs get hold of them they consider that the tugs take them where the water is.

Q. From the time a tug throws a line to a small vessel or other boat until it gets to tying up place, the vessel towed is under the control of the tug, is it not?

A. To a certain extent it is. Not entirely; be impossible to tow a vessel without management aboard the vessel as well as the tug, but it is generally considered—in fact, they do what the tug tells them, always; a tug is supposed to manage it. But the reason I explain it is that we are not common carriers, we are only held liable for our own acts.

Q. But the practice is, is it not, just as a vessel does in the harbor of New York, to surrender its guidance to the pilot when taken aboard, the vessel entering the harbor of Chicago surrenders itself to the custodianship of the tug?

A. Yes, sir, nearly the same.

Q. State whether or not that business necessitates the tug captain and owner becoming intimately familiar with the channels leading into the Chicago harbor?

A. We have to be; couldn't do it if we were not.

Q. When you left here in 1857, you were away for how many years?

A. Four years.

Q. You came back, then, about 1862?

A. Came back here in the spring of 1862.

Q. And what did you do from that time on?

A. From 1862?

Q. Yes.

A. I have been an owner of tug boats here.

Q. Has your experience been large in connection with tug boats?

A. Yes, sir.

Q. In Chicago harbor, since that time?

A. We are the largest concern in that business on the lakes.

Q. How did you come to Chicago when you first came here in 1857?

A. I came here on a tug boat from the Hudson river, Troy, New York.

Q. How did you enter the Chicago harbor?

A. We entered the Chicago harbor at that time by coming in close to the north pier with this tug.

Q. What was the general practice for vessels entering Chicago harbor during the three years that you were here at that period?

Mr. Ayer: I object to that question as immaterial and irrelevant.

A. The general practice of every vessel that drew any water was to go down about abreast of Van Buren street, come in what is now the outer harbor here, and steer up north to the entrance to the harbor, to the piers.

Q. Was there a light-house on the end of the north pier at that time?

A. Yes, sir.

Q. Has the light-house remained on that pier ever since until recently?

A. Remained on the pier ever since until last year, I think, it was taken away.

Q. In the same place?

A. Yes, sir. The keeper's house is there still—light-house keeper.

Q. In 1854 did that light-house mark the extreme end of the north pier, the east end?

A. Yes, nearly the east end.

Q. What, if anything, was there located in the lake opposite Van Buren street to indicate where the turn was made for vessels coming into the harbor?

A. There was a bar that extended from the piers—nearly to the north pier, that extended down to about Van Buren street, I think, a little north of that, and there was a buoy stationed there that we used to go around on the south end of that bar. We used to go around that buoy to get into the deepest water, then come north towards the piers.

Q. With reference to the light-house on the pier—east of the north pier, what direction did that buoy lie?

A. Well, it was nearly south. If this map is correct, it was a little east of south—little outside the end of the pier.

Q. About the year 1857, did the south pier extend out as far as the north pier to the east?

A. No, sir; it never has since it has been built.

Q. Now, when you rounded this buoy that you spoke of, about how far in towards the shore would you sail before tacking?

A. We would come in west until we got a little west of

Evidence before
Master.

the light-house, in range of the light-house, so that when we came up we steered a little west of north, or almost north.

Q. What was your objective point?

A. As a rule we were steering west of the light-house.

Q. And when you got up opposite the mouth of the river, what course would you take then?

A. Of course we took a due west course, come into the mouth of the harbor.

Q. Luffed into the river?

A. Turned around the end of the south pier always, and came up the river; that direction is about west, nearly west.

Q. When you came back here in 1862, how did you come in?

A. Came in the same way.

Q. What did you come to Chicago on?

A. I came on another tug in 1862.

Q. How did you enter the Chicago harbor in 1862; by what course?

A. Well, with that little tug, drawing 5 1-2 feet of water, or 6, we came in by the piers.

Q. What was the practice of commerce at large to enter the harbor at that time?

A. Taking the same course as we did before, in 1857.

Q. That is, down beyond the south buoy to about Van Buren street?

A. Yes, sir.

Q. Then tacked north till you struck the south pier?

A. Yes, sir.

Q. Thence west into the river?

A. Thence west into the river.

Q. Do you recollect how long that practice kept up?

A. No, I do not; I know we did it in 1863. We never kept track of the improvements or what was done.

Q. State, if you know, whether or not the government dredged out this sand bar that lay at the mouth of the north pier, afterwards?

A. I am quite sure; I won't be positive, but I am quite sure they dredged it in 1863.

Q. That channel through there would admit boats going directly up the river?

A. Yes, sir; after it was dredged out.

Q. Do you recollect what was the draft of large vessels, say prior to 1869?

A. I think along in 1869 we got vessels drawing as much as 12 feet of water.

Q. Prior to that time, what had been the draft?

A. There was but very few vessels came in here drawing over 11 feet before 1863, or at that time; in 1863 there was very few vessels came in here drawing over 11 feet.

Q. About 1869 there were vessels drawing 12 feet of water, were there, entering the harbor?

A. Yes, I think there was; yes, sir.

Q. About that time, prior to 1869, what was the draft, the deepest draft of tug boats engaged in the harbor?

A. About 8 feet; along in 1854-57, I don't think there was a tug here that drew 8 feet of water; afterwards, when we commenced to build them after that time, we built them to draw more water.

Q. What was the average, prior to 1869—average draft of tug boats?

A. I shouldn't think it was over 6 feet and a half.

Q. And prior to 1869, what was the average draft of vessels; that is, the ordinary run?

A. I don't think it would average over 9 feet and a half, if it did that; some less and some over. Most of them, I don't think drew over 9 feet.

Q. Do you know the depth of the water over the La-Salle street tunnel in the Chicago river now?

A. Yes, sir.

Q. What is it?

A. The extreme depth at high water, directly in the center of the river, is about 16 feet 8 inches. Water varies a foot, according to the direction of the wind, but we advise vessels loading here that don't have to go up the river any farther than the forks, to load to 16 feet 8 inches.

Q. I suppose a vessel coming in there might get over the crown of that tunnel, although loaded a little deeper, by jumping over it?

A. With a good, stiff, northeast wind I have no doubt they could get over there with 17 feet, although we never advise them to load—what we call the draft of water is what we would advise vessels to load to get over; I know we could get 17 feet over there sometimes, maybe a little more.

Q. When the water is piled up on the west shore by a northeast wind?

A. Yes; northeast wind.

Evidence before
Master.

Q. But when the water is in its natural condition, unaffected by storms——

A. We call it 16 feet 8 inches.

Q. How is the channel on either side of the immediate center?

A. That is shoaler, considerably.

Q. Runs up to what depth on the banks?

A. Five feet difference, I believe, between the depth of the water at the docks on either side, and the center of the river. May not be quite as much as that. I have seen city charts that claimed that there was, or government charts, that is by sounding only.

Q. So at the docks on the side, the depth would be about 11 feet 8 inches?

A. Not over that.

Q. Do you recollect the depth of the water right over the Washington street tunnel?

A. Yes, sir; I think there is a foot and a half more there; we don't have any trouble there now, for that reason we don't know just exactly how much there is, but I know that when the tunnel was re-built by Mr. Yerkes he lowered it a foot and a half.

Q. That was about 1889, wasn't it?

A: 1888, I think it was.

Q. What was it prior to that time—depth of water over the Washington street tunnel?

A. I think there was about a foot difference between that and La Salle; less water over the Washington street tunnel at that time than there was over the other.

Q. About a foot shallower?

A. Yes; wasn't over that I don't think; might not have been quite as much, but from 6 inches to a foot.

Q. So it stood about in the neighborhood of 16 feet at the Washington street tunnel?

A. Yes, sir; at that time.

Q. Prior to 1889?

A. Prior to the time Yerkes re-built it.

Q. Will you describe the course of the Chicago river from its mouth to where it branches, and briefly describe the branches?

A. The main branch of the river is nearly due east and west. The south branch of the river, take all of it together, it is quite crooked any way, that will reach up nearly south-west.

Q. About how far is it from the shore of the lake and the mouth of the river west, to where the river branches?

A. Up to the forks of the river?

Q. Yes.

A. I would say it is three-quarters of a mile.

Q. Then does the river branch, one branch leading to the northwest, and the other to the southwest?

A. Yes, sir.

Q. That to the northwest being known as the north branch, and the southwest the south branch?

A. Yes, sir.

Q. How far do boats engaged in commerce go up the north branch, if you know?

A. From the mouth of the river, I should say they went nearly five miles.

Q. And how far up the south branch?

A. Well, I think that we go nearly the same distance there; I should say it was five miles both ways.

Q. Where are the lumber yards of Chicago located?

A. They are located, well, from three to four and a half to five miles from the mouth of the river up the south branch. Might say from Halsted street to the McCormick Reaper Works; that is what we call the lumber district.

Q. And where is the packing district of the city located?

A. It is located in the south fork of the south branch.

Q. About how far from the mouth of the river?

A. That is five miles, I should say; nearly so.

Q. Where are the elevators, the grain elevators of the city located?

A. They are located all over the river, nearly.

Q. About how far from the mouth of the river is La Salle street?

A. I should judge from half to three-quarters of a mile.

Q. That street runs which direction?

A. North and south.

Q. And how is it continued under the river?

A. By a tunnel.

Q. The one you have referred to?

A. Yes, sir.

Q. And what direction does Washington street run?

A. East and west.

Q. What part of the river does that cross?

A. South branch of the river.

Evidence before
Master.

Q. How far from the mouth of the river is Washington street where it crosses the south branch?

A. I should say not over an eighth of a mile, it is only two blocks.

Q. Two blocks from where the river forks?

A. Yes, sir.

Q. About how many grain elevators are there in Chicago, situated on the river and its branches?

A. I haven't counted them; I should say there was 30, easy enough.

Q. How many of those elevators are east of the La Salle street tunnel?

A. Three.

Q. The rest are situated west of the La Salle street tunnel?

A. Yes, north, south and west.

Q. About how large a percentage of the commerce of the city of Chicago goes west of the La Salle street tunnel?

A. I should say seven-eighths of it, if not more. More than seven-eighths, I guess, but call it, seven-eighths.

Q. What do you call navigable water, Captain?

Mr. Ayer: I object to the question.

A. I should call navigable water, the shore line where a fishing boat would float.

Q. Any water outside of the shore line where a boat would float?

A. Yes, sir.

Q. Do you know what the tonnage is required for a boat to be enrolled?

A. Five net ton; all over five net tons are required to be enrolled.

Q. How much draft does a boat carrying five tons take?

A. It would depend upon the shape they are built. I believe a boat could be built to carry five ton that wouldn't draw a foot of water.

Q. Constructed with a keel, as keel boats are ordinarily constructed?

A. Two feet.

Q. What draft of water would boats take that are engaged in interstate commerce in the Chicago harbor; from what extremes?

A. You mean vessels that go on the lakes?

Q. Yes.

A. Or canal boats, anything of that kind?

Q. Anything engaged in interstate commerce?

A. Well, these vessels that go out on the lakes, some of them wouldn't draw over a foot and a half, and we are loading some of them in some of the places now to 18 feet, but as a rule they are only loading to 16 1-2, 16 to 18 feet.

Q. That is the largest sized boat?

A. The largest sized boat, yes, sir.

Q. How many boats are there, approximately, engaged in commerce here in Chicago that you can load to 18 feet?

A. There are only those that have been built in the last few years, last 3 or 4 years. I don't suppose—well, to load them and be navigable handy boats, there isn't only, I don't suppose, 8 or 10 of them that could be loaded to 18 feet, although they could load some of them that was built some ten years ago, but boats built to draw 18 feet is only been in the last 2 or 3 years; I know boats we are building now of the largest size are being built to draw 20 feet, the——

Q. Those boats can't get into the Chicago river?

A. No, sir.

Q. Loaded?

A. No, sir. There was one boat that drew 18 feet loaded at Escanaba and unloaded on the shore at South Chicago, it was the only place that she could have drew that draft of water. Went from port to port and carrying that cargo on the lakes, the only place she could have done that; carried nearly 5,000 tons.

Q. How large a percentage of the commerce of this port, approximately, is the lumber trade?

A. In numbers, you mean?

Q. Yes.

A. Well, now, I haven't statistics of that, I have only got to guess at it; I would say 2 to 1.

Q. Two in number to one in anything else?

A. Yes, but not in tonnage.

Q. No, the number of boats. What are those boats usually constructed of, wood or iron?

A. All of them, nearly, of wood.

Q. And about what is the average draft of those lumber boats?

A. I should say now, they would be 10 1-2 to 11 feet on an average, some of them 8 and 9 feet. What are our smallest vessels now were our largest in '62 and 3, along there.

Q. Do you know why the north pier has always been projected out farther than the south pier?

Evidence before
Master.

A. Yes, sir; when there is any current, there is a natural current that runs along this shore from the north to the south; they built the piers out to—what you might claim was to catch the sand that drifts along with the current.

Q. From the north?

A. From the north. The sand along the shore naturally washes with the sea from the northeast, and that is our largest sea; naturally washes to the south.

Q. What effect does the projection of the north pier beyond the south pier have in protecting the depth of the water south of the north pier?

A. Have the effect of catching the sand that naturally washes by the pier as you build it out, you build it in deeper water and leave a space north of it to catch the sand.

Q. That protects the channel south of the north pier?

A. Yes, sir; that was the cause of this old bar that went out there the time we have been talking about was because the pier was not out far enough, and the sand washed past the end of the pier and settled after it got below the pier; that formed this bar across the mouth of the harbor.

Q. That lay athwart the mouth of the river there?

A. Yes, sir.

Q. Do you know anything about the number of vessels that entered this harbor the last year?

A. I think our arrivals and clearances the last year were about 8,000; I wouldn't be positive in regard to more, there have been as high as 12,000 when our vessels were small and our lumber trade was great and a short distance across the lake here, but it has been decreasing, but not in tonnage, not in capacity, but in numbers.

Q. Do you know the condition of the harbors on the Michigan coast, as to whether they are deep or shallow, where this lumber is brought from?

A. They are getting them to be of considerable depth of late years.

Q. But what have they been heretofore?

A. They used to be quite shoal.

Cross-examination by Mr. Ayer:

Q. The tunnel under the river at La Salle street is the nearest tunnel, is it not, Captain Dunham, to the mouth of the river?

A. Yes, sir.

Q. Has that tunnel ever been reconstructed or altered since it was first built?

A. No, sir; I don't think it has to any extent.

Q. Do you remember when it was built?

A. No, I do not; it must have been along in the sixties or in the seventies, somewhere along there.

Q. Do you know how far below the level of the river the top of that tunnel is?

A. Well, by telling you about the draft of it gives you that distance. The surface of the water, you mean?

A. Yes.

A. I testified here that at highest water it would be 17 feet right in the center of the river.

Q. What I want to get at is, whether that tunnel is—whether the top of that tunnel is constructed in a straight line, horizontally, or whether it is circular, or how? On the sides of the river is it as far from the water surface to the tunnel as it is in the center?

A. Oh, no; as I said before, there is five feet difference.

Q. To the brick work of the tunnel?

A. To the top of the tunnel; in other words, it is sixteen feet and a half of water in the center of the river, that is the middle of the tunnel.

Q. How wide a channel is there left in the center of the river where that tunnel crosses?

A. There isn't only just about room enough to get a vessel through there; have to get them right to the center of the river to get them through; our vessels are 40 to 45 feet wide; I should say there was not over 60 feet where we can get a draft of 16 feet 8 through there.

Q. Well, now, let us go to the Washington street tunnel; I understand you to say that that tunnel has been altered since it was first built?

A. Yes, sir.

Q. And that you mentioned Mr. Yerkes as having something to do with reconstructing it?

A. Yes, sir.

Q. Was it really reconstructed?

A. Well, I should say yes, for the reason that they put cofferdams in on both sides of the river to do it.

Q. What was the object of the reconstruction?

A. It was because it was the shoalest place that we had before the reconstruction. To give you a little history of it I will say that I noticed in the papers that Mr. Yerkes was

Evidence before
Master.

going to build the tunnel and I went up to Mr. Roche, who was mayor at that time, and said to him, if Mr. Yerkes is going to re-build that tunnel, it should be lowered, by all means. Says I, can't you see when you cross the river going home that there is a lot of vessels aground there? He says, that is so, why didn't you speak of this before Mr. Yerkes had let the contract to rebuild that tunnel? He says I will call him up immediately. He called him up and he came right down to the city hall and he saw the point of it himself, and he says, we must lower it. He called off his contract and the city paid the extra cost, that it would cost Mr. Yerkes to lower it.

Q. When was the tunnel first constructed, about when?

A. It was after the La Salle street tunnel, must have been four or five years after that. If the La Salle street tunnel was completed in 1871, that must have been somewhere near the 80's, I guess. I won't be positive in regard to this matter, but I was here and very familiar around the river all the whole time, and why is it that I can be mistaken. I believe the La Salle street tunnel was the first tunnel built; I may be wrong.

Q. How long had this Washington street tunnel been in existence before the alteration was undertaken by Mr. Yerkes?

A. I couldn't say.

Q. For some years?

A. Oh, yes.

Q. What was the depth of water over that tunnel before it was reconstructed by Mr. Yerkes?

A. I think there was about six inches less than there was over the La Salle street tunnel; not over that difference.

Q. And you say that was the lowest place in the river—the shallowest place?

A. Not the shallowest place in the river; it was the shallowest place down in this vicinity; of course up the river you know there is shoal places.

Q. What was your objection to having that tunnel reconstructed by Mr. Yerkes substantially on the original plan?

A. For the reason there wasn't water enough over it.

Q. But it allowed vessels drawing 16 feet 8 inches of water to pass, or 16 feet of water, to pass?

A. At that time?

Q. Yes.

A. No, I said it was shoal; there was 16 feet 8 on La Salle

street, and less water over the Washington street, about 6 inches less

Evidence
Master. bet

Q. Then vessels drawing 16 feet of water could pass up there?

A. Yes, sir.

Q. That wasn't sufficient, as you thought?

A. Oh, no.

Q. How much did you want?

A. I calculate in three years we will want 20 feet.

Q. The tendency then is to the use of larger vessels, drawing more water?

A. Yes, sir, it has been.

Q. Been constantly in that direction, has it not, the tendency?

A. Yes, sir, ever since I have been here.

Q. Haven't in fact sailing vessels been very largely superseded by steam vessels?

A. Oh, yes.

Q. In the commerce of the lake?

A. Yes, sir.

Q. In what kind of vessels now is the lumber business done, in sailing vessels or steam vessels, principally?

A. Most of it is done in sailing vessels, then it is done by steamers and consorts, two barges.

Q. Principally by sailing vessels?

A. Yes, sir; the cedar trade and lumber, both together.

Q. In what kind of trade are these large sized vessels which you speak of engaged?

A. Grain, iron ore and coal.

Q. You were asked in regard to the elevators; will you state whether there are any grain elevators on the Illinois Central depot grounds?

A. Yes, sir; there are two.

Q. East of Michigan avenue?

A. Yes, sir.

Q. There are two large Illinois Central elevators on the Illinois Central depot grounds east of Michigan avenue?

A. Yes, sir.

Q. At the river?

A. Yes, sir.

Q. And do you know whether there is a large coal business and lumber business done there?

A. Down at the Illinois Central?

Evidence before
Master.

Q. Yes, is there not a large amount of coal brought to those wharves and unloaded by vessels?

A. No, sir; I don't think there is.

Q. How is it in regard to lumber?

A. There is considerable lumber.

Q. How is it in regard to salt?

A. Last year or two been a good deal of salt there.

Q. How is that carried?

A. That is carried by the large sized vessels.

Q. Is there not a large lumber trade down near the mouth of the river north of the north pier?

A. No, sir; not a large lumber trade.

Q. Haven't they got large lumber yards there?

A. In what you call light-house slip, you mean, on the north side?

Q. Those piers or wharves lying just north of the north pier?

A. No, there is only one lumber yard there, virtually.

Q. What yard is that?

A. It was until two years ago, was what was called the Peshtigo Lumber Company, it has been sold since to other parties, I don't know exactly who it is.

Q. Didn't the Peshtigo do a large business?

A. Yes, sir; for one company it did quite a large business, yes, sir.

Q. Does the north pier extend further out into the lake now than the south pier?

A. Oh, yes.

Q. How much farther?

A. Well, of course, we will have to call the pier what the government had built. The government has extended their light-house slip out into the lake, that would be a government pier. And the south pier, I should say a thousand feet—the north pier extends into the lake a thousand feet farther than the south pier does.

Q. And on the north side of the north pier will you state whether or not slips and piers and wharves have been constructed in aid of commerce and navigation?

A. No, I think not.

Q. What is the condition of things north of the north pier?

A. They are building there what is termed Fitzsimmons' farm.

Q. Hasn't there been—I thought there had been a large harbor improved there?

A. No, sir; they have left opened between those—about in the center of this farm, and it is called a slip, but that belongs to the city; it is right abreast of the waterworks; they have left that open, might be called a slip.

Q. Where were these grounds that were occupied by the Peshtigo Company?

A. They are the north side of what is called the light-house slip, now they are extending this ground from the grounds that the Peshtigo Company occupied, north.

Q. The grounds which the Peshtigo Company occupied there, consisted of wharves and piers?

A. Yes, sir.

Q. Which had been constructed in the lake?

A. Yes.

Q. Was there an opening through the north pier?

A. Yes, sir.

Q. To their slips?

A. Yes, sir.

Q. How large a space did that Peshtigo Company occupy with their slips and wharves?

A. You mean the whole ground?

Q. Yes.

A. Or just the water front?

Q. I mean how large a space did they occupy; how many acres?

A. Oh, I couldn't say; I should say that they occupied a water front of 2,000 feet, not over that, and when you come to estimate an acre of ground I don't know as I could that. I should say though, as a guess, they must have occupied eight acres there, six to eight acres.

Q. How far did that improvement extend out from the original shore?

Mr. Hamline: What do you mean by original shore?

Mr. Ayer: The shore as it used to be when the Captain first knew it.

Q. Do you know what was the condition of the shore line when the Peshtigo Company commenced their improvement?

Mr. Hamline: Do you know when they commenced?

A. No, I do not; of course they commenced when they built that light-house slip, that I suppose was built by the

Evidence before
Master.

Peshtigo Company, I know it was built by William B. Ogden, he was the head one of the concern that commenced to build that. They occupied at that time on the river front and up as far as the light-house slip now runs, and I have no doubt that Ogden kept building that out, in fact, I know they did until they got out where they are now. That slip, I should say, was a quarter of a mile long, it may not be as much as that, but somewhere near there.

Q. What was the condition of the lake there on the spot covered by these improvements, what was the original condition, shallow water?

A. Yes, sir, it was of course, it was nothing but a shore line up from there north.

Q. The water they occupied was shallow water, was it not, and they built wharves there and piers?

Mr. Hamline: I object to that; this is not cross-examination of anything brought out in chief, and it therefore is leading, asking the witness to state something about a fact he has already stated he didn't know, to wit, where they began there.

Mr. Ayer: I want to know whether they didn't occupy the shallow water of the lake with their piers and slips, and dredged out the channel so as to make the water accessible to lake commerce, or make the grounds accessible.

Mr. Hamline: I object to that unless he knows what they intended to do when they built.

Mr. Ayer: I ask merely the fact whether it is so or not.

A. Well, of course they built out a pier out into the lake, extended out into the lake, and of course dredged out south of it and made a slip, and of course they started from the shore line; started from land out into deep water.

Q. You speak about their having occupied 4,000 feet in length, what do you mean by that?

A. I said 2,000; I mean on the water front, I should say was about 2,000 feet.

Q. What do you mean by water front?

A. The docks along the slip; they didn't occupy the whole slip; they occupied when they sold out they occupied the east end of the slip and about 2,000 feet of that slip, of that water front slip.

Q. Was occupied?

A. Was occupied.

Q. They constructed all this?

A. I suppose they did; yes, sir, I understood they did.

Q. How far do these works which they constructed extend out beyond the piers on the south side of the river, which were constructed by the Illinois Central Railroad Company?

Evidence before
Master

A. That is your piers that is south of the pier there?

Q. Yes.

A. How far out beyond that are they?

Q. Yes.

A. You know that is only a guess; I should say they are 500 feet; I wouldn't be sure of that, but it is somewhat from three, maybe, to five hundred feet out farther than the piers.

Q. Before the extension of that north pier into the lake was not the water which now lies north of the pier just as deep as the water lying south?

A. Oh, no.

Q. I mean, the water lying farther south?

Mr. Hamline: How far south?

Mr. Ayer: Between what is now the line of the north pier say, and Van Buren street and Madison street.

Q. Was there any appreciable difference in the depth of the water?

A. Oh, yes.

Q. North or south of the present line of the north pier before the north pier was extended out into the lake?

A. Well now, I don't just get at the meaning of your question. Ask it again and maybe I will.

Q. North or south of the present line of the north pier before the north pier was extended out into the lake?

A. Of course there has always been what you might call deep water south of the pier because it is the mouth of our harbor.

Q. You don't understand me.

A. I see I don't understand it.

Q. The north pier, as I understand it, was extended out into the lake for the express purpose of forming a channel south of that pier?

A. Yes, sir.

Q. Before the pier was extended out into the lake, the water south of where the pier now is was no deeper, was it, than it was immediately north of where the pier now is?

A. Yes, that pier—there is no extension of the pier for what is called the light house slip has been built out there since the channel was dredged out and made directly out to the mouth of the harbor; there has always been water there for vessels to come in, and this new pier that is built out there

Evidence before
Master.

now has been extended out there during the time that we have come directly into the harbor; there has always been more water, of course, south than there would be north.

Q. How far did the deep water extend south?

A. It extended on the line of the south pier of what is called the government breakwater.

Q. About the width of the river?

A. Yes, virtually.

Q. Then the water lying south of what you would now call the south line of the river was shallow, wasn't it, about the same depth as the water north of the north pier before the north pier was extended?

A. No, the bar was shoaler you know down south of the south pier, and the government built that breakwater up there, dredged it out on the inside.

Q. There the water was shoaler?

A. On the bar it was.

Q. And deeper on the north side of what is now the north pier?

A. No; I don't think it is deeper. The moment you build out the pier and there comes on a blow, it fills right in with sand from behind it, as a rule; shoals up there.

Q. I understand you to say that there was these shoals lying down inside of what is now the outer harbor?

A. Yes, sir.

Q. When you first came to Chicago that shoal was there so vessels approaching the harbor of Chicago had to enter as far south as Van Buren street?

A. Yes, sir.

Q. Come around that buoy?

A. Yes, sir.

Q. Then go up north or northwest to get into the mouth of the river?

A. Yes, sir.

Q. That was because there was a sand bar lying there?

A. Yes, sir.

Q. Between the mouth of the river and this buoy?

A. Extended across the mouth of the river to the north pier.

Q. At that time the north pier had not been extended out to where it now is?

A. No, sir.

Q. Was not the water, at that time, lying north of where the north pier now is, deeper than it was over this sand bar

and over that portion of the outer harbor now lying south of the south line of the river?

A. Yes; of this new pier?

Q. Yes.

A. Yes; I think it was.

Q. Do you know whether any work has been done by anybody for deepening the outer harbor since it was originally constructed?

A. Yes, sir; the government has dredged it.

Q. When did they do it, their dredging?

A. I don't know whether they have been doing it during the last two or three years, but I think within five years they have done it, but I couldn't say positively, you know. The World's Fair people dredged out considerably there.

Q. That was near the shore.

A. That was done at the Van Buren street pier.

Q. What is the depth of water now inside the outer harbor?

A. I don't know; I think it must be 16 or 17 feet there, easy enough.

Q. All over it, or in some spots?

A. Well, we of course don't go all over it; about the only way we have of knowing what the depth of water is, is by towing some vessels there, and if they don't ground we don't know how much water there is under them; but if they ground we have knowledge of how much water there is there. We never sound it or anything of that kind; we learn by experience.

Q. Do vessels now entering and leaving Chicago harbor ordinarily go through this outer harbor?

A. No, sir.

Q. They don't enter it at all, do they?

A. No, sir.

Q. You don't have much occasion for towing vessels within the limits of the present outer harbor?

A. No, sir; about the only business we have there is what you do. I suppose you are Illinois Central attorneys. I don't know anything about it.

Q. Do you know of anybody that has constructed any wharves or docks or facilities for loading and unloading vessels in and about the outer harbor, except the Illinois Central Railroad Company?

A. No, sir, I do not; except the Van Buren street World's Fair pier; that is torn out.

Evidence before
Master.

Q. Of what consists the harbor of Chicago at the present time?

A. The harbor is the river; that is considered the harbor of Chicago. The lake front beyond the breakwater was built for a harbor of refuge; that was the intention of it, or that is what they called it.

Q. Was it ever any part of the commercial harbor of Chicago?

A. No, sir.

Re-direct examination.

Q. Don't you know that the whole of the lake frontage south of the river, and as far south as 13th street pier has, up to the recent decision of the United States Supreme Court, been claimed by the Illinois Central Railroad?

A. Yes, sir, I do.

Q. And don't you know that the reason why no docks have been built during that time is on account of all that territory being in litigation?

A. From general information I do know that, that is all. I know nothing of it personally, more than what is told me and what I read in the newspapers. I have had considerable experience in that matter.

Q. You do know though, that title to the land under the water has been in litigation until recently decided by the United States Supreme Court?

A. Yes, sir; last year, I think it was.

Q. The Illinois Central Railroad claiming on one hand, and the city of Chicago and the State of Illinois on the other?

A. Yes, sir.

Q. Now, then, you also know, do you not, that the Illinois Central has built some docks towards the north end of this harbor of refuge?

A. Yes, sir, northwest corner of it.

Q. You have known of this harbor of refuge being used in case of severe storms, have you not?

A. Yes, sir, I know it has been used.

Q. You recollect of the severe storm of last spring?

A. Yes, sir.

Q. Heaviest storm we have had here in years, was it not?

A. Yes, sir.

Q. Lake commerce then lying out on the lake was driven into that harbor of refuge, was it not?

A. Some of them were.

Q. Such as could get in?

A. Those that could get in, yes, sir.

Q. Rest of them went up on the shore?

A. Yes. Some of them stayed up and anchored out in the lake.

Q. You don't know when that Peshtigo dock was started, do you?

A. No, sir, I do not.

Q. When you speak about 2,000 feet, you mean the linear measurement around all sides of the dock, do you not—all sides of the slip?

A. They occupied?

Q. Yes.

A. Yes, sir. I hardly think it was 2,000 feet, but it might have been.

Q. You don't know how far it did extend out, without the map?

A. In feet?

Q. Yes.

A. How far it extended out to the lake?

Q. Yes.

A. No, sir, I do not.

Q. You don't know what the shore line of Lake Michigan was when it was started, do you?

A. No, sir, I do not.

Q. You do know, however, that the shore line north of the pier changes very materially every two or three years?

A. I know it increases out into the lake all the time.

Q. On account of sand piled up against the north pier by this current from the north?

A. Yes, sir, I am quite sure that the shore line in 1854, when I first came here, was 5,000 feet west of this Peshtigo dock, the shore line was.

Q. Don't you know, as a matter of fact, that in 1854, when you first came here, the north pier extended some distance beyond the shore line of Lake Michigan, north of the north pier?

A. Yes, sir.

Q. And that the bar that you speak of being obliged to round in coming into the port of Chicago, lay a little farther east than the extreme east end of the north pier?

Evidence before
Master.

A. At that time.

Q. Don't you know as a matter of fact, Captain Dunham, that this channel which the commerce on Lake Michigan used in getting into the harbor of Chicago, lay directly south of the land that formed the shore line of Lake Michigan at that time, north of the north pier?

A. Yes, it was filled in north of the north pier.

Q. To a point opposite this channel?

A. Yes, nearly opposite the channel.

Q. As a matter of fact, hasn't the shore line been extending farther east all the time since that date?

A. North of the pier?

Q. North of the pier?

A. Yes, sir.

Q. As the pier was built out?

A. Yes, sir.

Q. Now, as a matter of fact, has the shore line extended any farther east than it was in 1854, save as it has been built out with docks by the Illinois Central south of the north pier?

A. No, sir.

Q. The government breakwater, which makes the east barrier of this harbor of refuge, was located with reference to the outlying sand bars about there?

A. I think they were put right on the sand bar; I am quite sure they were.

Q. And since the breakwaters were built the sand bars, so far as they lay west of the breakwater, was dredged out, was it? Do you recollect?

A. Yes, it was dredged out inside of this breakwater.

Q. And that east barrier of the harbor of refuge breakwater was built about the same time that the north pier was prolonged further out?

A. Well, I wouldn't be positive; I think, though, they built most of the breakwater before they did the pier, I am not positive, though, in regard to that.

Q. Now, Captain Dunham, those two elevators of the Illinois Central Railroad have been known in the city of Chicago here for a great many years as elevators A and B, haven't they?

A. Yes, sir.

Q. And weren't they standing in exactly the same location they are standing now, in the year 1857?

A. The first one built, I think, was the west one; I think that must have been; those slips were there in 1854.

Q. In 1857 weren't they standing in the same place they are standing now?

A. Never stood any different there.

Q. Do you know who owns these elevators?

A. They were called Sturges and Buckingham elevators at first.

Q. Do you know who owns them now?

A. No, I do not.

Q. Where are most of the coal yards of the city of Chicago, east or west of the LaSalle street tunnel?

A. West of it.

Q. What proportion of the coal business is done east of the Rush street bridge, compared with the total coal business done in the Chicago river?

Mr. Ayer: I object to that question.

A. Nearly all of it.

Q. Nearly all of it is done west of the LaSalle street tunnel?

A. Yes sir. There is but one hard coal dock east of the LaSalle street tunnel; there is two soft coal yards at the Illinois Central for coaling boats only; I don't think they use it for any other purpose but merely coaling steamers and tugs.

Q. Now, as a matter of fact, Capt. Dunham, since this slip was constructed by the Peshtigo Lumber Company, or whoever constructed it, hasn't the sand washed up from the north of the north pier so as to entirely surround that slip?

A. Well, I wouldn't say that it entirely surrounds it. Of course it has shoaled the water up there all the way out to the end of it; sand naturally washes in there and reaches nearly to the end of it.

Q. Well, as you recall the configuration of the shore there, doesn't the shore line of Lake Michigan north of the north pier lie east of this slip—north and east of this slip at present?

A. Yes; you know in the last two or three years they have built out there north of the Peshtigo slip away out into the lake. They are out as far as the Peshtigo Company was, I think.

Q. Built another slip?

A. No. They filled in there, from there clear up to Oak street.

Q. Somebody been stealing land up there?

A. I don't know; I believe Attorney General Moloney says they have.

Evidence before
Master.

Q. Do you know whether the State of Illinois is fighting them?

A. I only know Mr. Moloney is fighting them; don't know whether the State of Illinois is; believe the legislature appointed a committee to investigate it. I believe we are going to have a suit in regard to it.

Q. The legislature of the State of Illinois authorized that filling in, did it not, if you know?

Mr. Jewett: Objected to.

A. I understand they did, yes, sir. They have a right from the State, and, as I understand it, the only question in regard to it is whether the government will allow them to go out there.

Mr. Jewett: I object to this.

Q. Was not that in connection with the improvements of Lincoln Park?

A. Yes, sir; they are connected together in some way or other in regard to it. In fact, I know they have agreed to extend what is called the Lake Shore Drive down around these grounds.

Q. Do you know whether or not the State of Illinois has ever given any permission or authority to anybody else to encroach upon and occupy lands under the waters of Lake Michigan?

Mr. Ayer: I object to the question.

Mr. Jewett: We will take the ruling of the Master on that if it is going to be pressed. It is incompetent to prove a grant from the State by a witness' recollection or knowledge.

The Master: He may answer this question.

A. No, sir; I do not.

Q. I will ask you whether you know where the Illinois Central piers north of Randolph street now are?

A. That extend out into the outer harbor?

Q. Yes.

A. Yes, sir; I know where they are.

Q. I will ask you what relation those piers occupied to that portion of Lake Michigan that was utilized by commerce in getting into Chicago river at the time you have described, in 1854, up to 1862 and thereabouts.

A. They were built right across the channel that we then used to occupy.

Q. Running east and west?

A. Running east and west, yes, sir.

Re-cross examination by Mr. Ayer.

Q. When was it that the lake was dredged at the mouth of the river so as to furnish a more direct course for vessels entering and departing from the harbor?

A. I wouldn't be positive, but I am quite sure that they were dredging there in 1863; in 1862 the water was shoal there. I date my knowledge from being sued for the value of a vessel and cargo that was—

Q. When did you say you were using the old round about channel for entering the harbor?

A. I say I wouldn't be positive when that was, but I am sure we turned vessels around to the south of the bar in 1863.

Q. Have you any recollection of continuing that practice after 1863?

A. No, sir; I haven't. I don't know when we did stop doing it.

Q. Do you know whether or not portions of the old channel that you formerly followed, afterwards began to gradually fill up or at least grow shallower from the deposit that was brought down either from the lake or from the river?

A. You mean the outer harbor?

Q. Yes, in what is now the outer harbor. Whether or not the old channel that you used to follow up grew shallower, in consequence of deposits that were brought in and left there by the waters of the river and lake?

A. I am not aware of it.

Q. Don't know whether it is so or not?

A. No, sir; I think not. But we had no occasion to go down there only as some vessels came into the harbor of refuge and we went after them.

Q. There is a large volume of material every year brought down the river, is there not?

A. Yes, sir.

Q. In a state of solution?

A. No, only when we have a freshet.

Q. Whenever you have a freshet?

A. That is so, yes.

Q. Whatever this current brings, of course—the water of the Chicago river is heavily loaded with matter of various kinds in solution?

A. Yes, sir.

Q. Every time this current is created by rain that matter

Evidence before
Master.

is brought down, isn't it, and forced out into—either into the lake or mouth of the river?

A. Yes, but that doesn't occur only in our spring freshets; our current runs up the river here, as a rule, over seven-eighths of the time.

Q. That is an artificial current?

A. Yes, sir, made by the pumping, but the spring freshets carry this down the mouth of the harbor out into the lake.

Q. Isn't it constantly necessary around the wharves of the Illinois Central railroad to keep dredging in order to keep up the depth of the water?

A. I suppose you have to.

Q. Isn't there a constant tendency for matter to be deposited there so as to fill it up?

A. There is with our whole river.

Q. Was the south pier extended by the government out across this channel that you speak of before the Illinois Central piers were built?

A. I wouldn't be positive of that, but I think they did; I wouldn't be positive.

Adjourned to Friday, November 9, 1894, at 10 o'clock A. M.

November 9, 1894

Met pursuant to adjournment.

Present as before.

CLARK J. TISDELL, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. My name is Clark J. Tisdell; I live in Evanston, Cook county, Illinois; I am a lawyer with an office at 36 La Salle street, Chicago.

Q. What was your business in the year 1889?

A. I was a clerk in the law office of Hamline & Scott now Hamline, Scott & Lord, of which you are the senior member.

Q. State whether or not you had occasion to make any sounding in Lake Michiagn directly opposite 16th street in the city of Chicago?

A. Yes sir.

Q. What time did you make those soundings?

A. On the 12th day of July, 1889.

Q. Will you state where those soundings were made?

A. They were made between the old and partially submerged piers and the Illinois Central tracks almost in a direct line of what would be 16th street after produced east into the lake.

Q. About how far east of the shore line did you make those soundings?

A. The nearest one to the shore was off the face of a submerged pier, partially submerged, running east and west, and I should say about 200 feet from the shore line.

Q. That was immediately east of the east end of this submerged pier?

A. Right off the east end.

3-22-37 Q. And what was the eastern extremity of the soundings that you took; what marked that?

A. The face of another pier in a direct line almost with the first pier of which I spoke, and approximately from 75 to 100 feet directly east. That is, considering 16th street east and west.

Q. What, if any, steps did you take to ascertain the character of the soil at that point, submerged under the water?

A. I went out there in a boat, and I had been waiting several days for a good quiet day when there would be no sea running, and on the 12th of July there was such a day and I went out there and had a long pole, I should think it was at least 15 feet long, and with that I carefully raked the bottom of the lake between the face of those two piers, for a distance of 75 or 100 feet, and I couldn't find anything except gravel or mud bottom. I run across no obstructions whatever on the bottom of the lake.

Q. No sunken piles or anything of that kind?

A. Not that I could find, and I made a search for those, especially.

Q. These piers that you speak of, directing your attention to the inner or westernmost one; state whether or not that was wholly submerged, or partially submerged?

A. Well, it was almost wholly submerged; the outer face—the east end of it was above water at that time, and at intervals, I think—no, I am not sure, I think the eastern portion of it was all that was above water.

Q. To the west it didn't appear above the water?

A. Not that I saw; I didn't trace it in to see how long the

Evidence before
Master.

pier was, but my recollection is that nothing but the east end of it was above the water at all.

Q. Calling your attention to the pier still farther east from this last named pier, which marked the eastern limit of your sounding, state what condition that was in as to its being submerged.

A. Well, it was only partially submerged; the pier ran out for some little distance, I don't recollect just how far, but I know that at points along the pier the top was visible here and there.

Q. Can you state what you ascertained the depth of the water to be at the point you speak of?

A. It was between 13 and 14 feet at every point that I measured it. I can tell the exact figures by reference to a memorandum that I made in the boat at that time.

Q. Have you that memoranda here?

A. Yes sir, here it is. (Handing over seal paper).

Mr. Hamline: I will offer this memorandum in evidence as complainants' Exhibit G.

Q. These rectangular blocks on here marked A and B designate what?

A. The two submerged or partially submerged piers of which I have just testified. The one marked B is the west one nearer the shore a little, and the one marked A is the east one.

Q. I observe on this sketch you have, between the piers, figures, running from 1 to 10; what do they designate?

A. They designate the points at which I took the soundings, and they are numbered from 1 to 10, and opposite figures from 1 to 10, on the margin of the paper, are the various soundings, depth of the water at the points marked correspondingly between the two piers.

Q. For instance, number 1 is marked as 13 3-4 feet, and 2 has a couple of dashes below.

A. That means the same, familiarly known as the "ditto" mark.

Q. Number 3, ditto; 4, 13 feet and 8 inches; 5, ditto?

A. Yes.

Q. And so on down the paper?

A. The depth off the west pier, off the face of it, was 13 feet, and it was 13 3-4 feet off the face of the east pier.

Q. You have a memorandum below here: "This never was one continuous pier, for the bottom is gravel and on the same level with the bed of lake outside of the pier line, and

the face of each pier (a and b) is perpendicular." What is the statement based upon? Evidence before Master.

A. An examination that I made at that time. The end of the piers appeared to have been, or the face of them, rather, appeared to have been boarded up and constructed as though they were the end of the pier, and not that portion remaining after something had been washed out between them.

3-22-38 Q. In other words, the timbers went right straight to the bottom?

A. Went right to the bottom.

Q. How did you ascertain that fact?

A. I poked around there with a pole and couldn't find any way to break through the timber line clear to the bottom of the lake. It was clear, the lake was, that day, and I could see some three or four feet below the surface I should think.

Cross examination by Mr. Ayer.

Q. At whose request did you make those soundings?

A. At the request of Mr. Hamline.

Q. Do you know whom he represented?

A. In a general way only, I knew that he was in what was known in the office as the Lake Front case, and that on the other side of the case was the Illinois Central railroad, but I was just beginning, at that time, to study law; I knew nothing of the details of the case at all.

Q. The Lake Front case was then pending in court, was it not?

A. I presume so, I have no definite knowledge about it.

Re-direct examination.

Q. As a matter of fact, didn't you know that Mr. Hamline represented the Attorney General of the State in a bill pending in the State Court, in which the people of the State of Illinois—

Mr. Ayer: Objected to as leading, the witness said he didn't know.

Mr. Hamline: I think he does know.

Q. In which the people of the State of Illinois were complainants, and the Illinois Central railroad was defendant?

A. I do remember that Mr. Hamline, that is, it was so understood in the office, represented the Attorney General in some Illinois Central proceedings, whether or not it was this case, I don't know.

Evidence before
Master.

Q. Do you recollect whether or not there was a case in the office, of the Attorney General against Illinois Central, filed in the State Court?

A. I don't recollect distinctly.

Mr. Jewett: Do you remember who the Attorney General was at that time?

A. I do not.

November 9, 1894.

G. A. M. LILJENCRAINTZ, A witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. G. A. M. Liljencrantz; I am assistant engineer in the United States Engineer's office; residence, 2258 Wabash avenue, Chicago.

Q. How long have you been in the engineering department of the United States Army?

A. Since the 12th of April, 1871, and also one year previous to that in Milwaukee, from 1869 to 1870.

Q. Have you been in the United States Army during all that time?

A. No, sir; not in the army, merely civil assistant engineer.

Q. Civil officer?

A. Yes, sir.

Q. I will ask you whether or not you are the same G. A. M. Liljencrantz, assistant engineer, whose name appears on Exhibit E, offered in evidence, being dated May, 1878?

A. Yes, sir.

Q. State whether or not you made the soundings that are marked upon the face of said map?

A. I did.

Q. State whether or not you made this map?

A. Yes, sir. Well, I presume you mean the original, because the blue print was taken from it. I made the original, and the draughtsman in the office made this from it, and I went over there and looked at it to see that it was correct.

Q. And when were these soundings made?

3-22-39 Q. In May, 1878.

Q. By you personally?

A. Yes, sir.

Q. These figures on here, for instance, 15 with a decimal and then 4 indicate what?

A. The decimal is tenths of a foot.

Q. And placed on the map indicate what?

A. Location where the sounding was taken.

Q. Depth of the water?

A. Depth of the water at that place.

Q. Did you take any soundings except such as appear upon the face of this plat?

A. Yes, sir.

Q. I mean within the limits of this plat?

A. No, sir.

Q. I will ask you what, on this plat, indicates the shore line at that time?

A. There is the water line, and this is a pier built outside. (Indicating).

Q. Describe it with reference to the bottom of the tracing; which line is the shore line?

A. The soundings are taken up to the pier which was built at that time, and the line inside of that pier shows the water line; the limit between the land and the water at the time.

Q. That is the wavy line?

A. Yes, sir. Beginning at the left hand lower corner of the tracing in the third line inside the marginal line; the first two lines are railroad tracks, next is the shore line and the double lines outside of the shore line is the pier line.

Q. Then you have marked on the bottom of this map a couple of parallel lines to indicate the line of the railroad?

A. Yes, sir.

Q. And the next line above those two lines is the shore line?

A. Yes, sir.

Q. As it stood at that time?

A. Yes, sir.

Q. And the lines next above those lines indicate piers?

A. Piers, yes, sir.

Q. And between the piers and the shore line, stood what?

A. Water.

Q. Inside of these breakwaters, I understand, you took no soundings?

A. No, sir, wasn't required for our purpose.

Q. I observe on this map a line running north and south.

Evidence before
Master.

marked "United States dock line extended;" did that exist in the water, or was that simply an imaginary line?

A. It is an imaginary line; that is so described that it can be marked at any time.

Q. And I observe a dotted line running east and west from 12th street, center line of 12th street; that a real line at that time, or simply an imaginary line?

A. That is a line laid out to show where the then proposed southerly breakwater should terminate.

Q. Purely imaginary line, however?

A. Yes, sir.

Q. I observe, running in a northeasterly and southwesterly direction, a couple of dotted lines, over which is marked, "Proposed south breakwater." Was that an imaginary line, or real structure?

A. That is a construction line, because the survey was made on purpose to locate the proposed south breakwater, and those lines are dotted to show the location of that proposed breakwater.

Q. But they are imaginary lines?

A. Yes, sir.

Q. I observe a curved line running through the water here bearing the mark, 15 foot curve; what does that indicate?

A. That indicates, tracing from the soundings, the line where the depth of water is 15 feet.

Q. Everything east of that?

A. East of that is deeper and west of that is shallower.

Q. With the exception of the curved line all otherwise appears upon the face of the map?

A. Except as shown otherwise.

Q. Calling your attention to Exhibit D, and to some lines of tracing thereon, east of the enclosed space bearing the designation, in progress of being filled with earth, said tracing bearing on its face the designation, "Proposed docks of Illinois Central Railroad Company," said Exhibit D being the map marked "Chicago harbor survey, made between the 20th of July and the 20th of August, 1869, soundings taken August 12, 1871." I will ask you whether or not those lines are imaginary lines, or whether they indicate structures that actually existed at that time this map was made?

A. They indicate imaginary lines where it was proposed to build docks or wharves.

3-22-40 Q. You are familiar, are you not, with the maps

on file in the office of the Board of Engineers of the United States government here in Chicago?

A. Yes, sir.

Q. Do you know whether or not the records of that office were burned up at the time of the Chicago fire?

A. Yes, sir; they were burned.

Q. Do you know how they have been supplied since?

A. Yes, sir, some maps have been supplied from Washington, because copies of the maps representing the surveys made were sent to the department, and, on application from the office in Chicago, copies were sent from Washington of some of those maps that were lost.

Q. State if you know, whether or not any maps were supplied from the Milwaukee office of the Engineering Corps of the United States Army?

A. I went up and copied some of the maps, I don't remember now which, but I went up and stayed about three weeks, I think, after the fire, and copied some of the maps that were kept in the office there.

Q. State whether or not these maps thus supplied have been employed and relied upon by the United States Government in their harbor work in Milwaukee, Chicago and elsewhere since that time?

A. They have been referred to when needed as correct copies; those from Washington were certified to.

Q. Calling your attention to this map marked Exhibit A; are you the same G. A. M. Liljencrantz whose name appears upon that map?

A. Yes, sir.

Q. Did you make that map?

A. I made the original; yes, sir.

Q. And where did you make it?

A. 1869, in Milwaukee.

Q. On this map there are dotted lines parallel to each other running out from the—first lines running parallel with the length of the Chicago river out east into the lake, then turns south opposite Van Buren street and then turns in east. I will ask you whether or not those were imaginary lines or were lines of actual construction at that time?

A. They were imaginary lines.

Q. I will ask you whether or not this is a true copy of the original map that you made?

A. It is.

Q. I will ask you whether or not practically, these sound-

Evidence before
Master.

ings that appear on this map of 1869, this map of 1871 and this map of 1878 are practically the depths of the water at those dates, at the points where the figures appear upon the maps?

A. As to what they have reference to, I can only speak of the survey that I made, because the map of 1869 I merely drew the map but didn't make the survey. The one of 1878 I made the survey so I can state what the soundings had reference to there.

Q. Now I will ask you whether or not the soundings of 1878 as they are marked upon the map, were at least the depth at the points where these soundings are marked; was at least as great as they appear upon the map?

A. Yes, sir.

Q. Actual depth of the water?

A. Yes, sir.

Q. Now I will ask you whether or not, from your knowledge of maps and work in the engineering department, the soundings marked upon this map of 1871 and 1869 respectively, show the water to be at least as deep at the points where the figures appear, as the figures themselves on said maps show?

A. Well, I couldn't say that when I didn't make the survey. The stage of water may, at certain days, have been below the plane of reference to which they are referred, and at other times above, but they are in that neighborhood.

Q. I want to know whether, as a matter of fact, there is any question but that the water—if the soundings are correct, whether or not the water is not at least as deep on the dates of the soundings at the points where the soundings are shown, as the figures indicated on the map?

A. Well, that is what I said, that I couldn't state because they may at some time have been somewhere below the plane of reference and in that case they would show on the map greater, might be a few tenths.

Q. Will you explain to us what your plane of 3-22-41 reference you talk about?

A. Yes, sir.

Q. For instance, in this Exhibit A, map of 1869, the note shows, the soundings are in feet and tenths of a foot, they are reduced to the plane of the new water gauge placed in the light-house crib which stands 2.12 feet below the southwest iron column of the light-house. The mean reading of

the gauge at the time of the survey was 2.95 feet. Now, what is the mean reading of the gauge?

Evidence before
Master.

A. I will have to explain that by first making this remark, that as a matter of course during the survey, the water surface fluctuates up and down and the gauge has to be read constantly and noted, and where the soundings are made, one purpose to be distinctly understood, they will have to be referred to one plane or reference, which means the water level at a certain time as shown in the book; they have reference to the level just at the time they are taken, but there are different changes many times a day; they have to be referred to one particular level so as to show the depth, as if all the soundings were taken when the level was at that plane exactly.

Q. In other words, you start out to make the soundings covering a period of two weeks, and during the time you would make those soundings the depths of the water might vary?

A. Certainly.

Q. Now, you are to reduce your soundings on the various days to a mean level of all the days.

A. To one certain level, that may be mean level, or may be extreme low water, or mean low water; it may be done at different times by different surveyors.

Q. During a period of, say, 30 years, do you know what has been the extreme limit of the average high and low water on Lake Michigan?

A. Do you mean extent of fluctuations during that time?

Q. For the whole time—in the whole time?

A. I couldn't say certainly without examining the records, but I should say some 3 or 4 feet.

Q. State whether or not that occurs in any one year, or whether the experience of the War Department has ascertained that for a period of years water will gradually grow higher and deeper, and for another period of years it will gradually recede?

Mr. Ayer: I have no objection to the witness stating his own experience, but the experience of the War Department I object to.

Q. State if that is your experience.

A. The annual fluctuation ordinarily amounts to, I should say, about two feet, but there are some years when the annual fluctuation has been greater, of course, other years less, but

Evidence before
Master.

in a number of years—in a series of years the fluctuation has been greater.

Q. What do these figures indicate on this map, out in the water here?

A. The depth of the water at the places as shown.

Q. Where the figures are placed?

A. Yes, sir, in feet and decimals.

Q. Now, where you state here, the mean reading of the gauge at the time of the survey was 2.95 feet, what is the meaning of "2.95 feet"?

A. I don't know, as I didn't make that survey, but I believe the gauge was read downward, that is, the zero placed at one certain point and then the gauge scaled downward so that it means the water level stood at 2.95 of a foot below that zero mark. But as I didn't establish the gauge, I don't know where that mark was.

Q. The great fire occurred on the 9th of October, 1871, didn't it?

A. 8th and 9th; yes, sir.

Q. You have had a large experience as a civil engineer in connection with the Chicago harbor?

A. Yes, sir.

Cross-examination by Mr. Ayer.

Q. Your attention has been called to a map marked Exhibit E, the original of which I believe you made?

A. Yes, sir.

Q. Will you state whether the soundings that are shown upon that map show the depth of the water on that particular day?

A. Yes, sir.

Q. Measuring from the then surface?

A. No, sir; they are all referred, as is always done, down to one plane of reference as it is called, which is here the mean lake level of Lake Michigan.

Q. How is that mean lake level ascertained?

A. By referring to a gauge, the zero of which has been established and which has reference to the low water 3-22-42 of 1847, and that plane of reference, to which these soundings are referred, is one foot and 8-10 above the Chicago city datum, or low water of 1847.

Q. Is that called the mean level?

A. Mean lake level.

Q. Assumed as mean lake level?

A. The result of a number of years' observation to be the mean lake level.

Q. During the whole season?

A. During a number of years.

Q. Then these figures do not show actual depth of the water on the day that the soundings were taken, measuring from the surface, but the depth as referred to this standard gauge?

A. Maybe I took that sounding; lake level may be one place, and when I took that sounding may have been another place, they had to be referred to one level.

Q. The level of the water in the lake is variable, is it not?

A. Yes, sir.

Q. From day to day?

A. Yes, sir.

Q. And from week to week?

A. Yes, sir.

Q. And what are these fluctuations caused by?

A. They are caused partially by the wind; north wind will raise the level in the lake in the south part of the lake considerably.

Q. And a south wind will have a reverse effect?

A. Yes, sir.

Q. These fluctuations are caused by winds and other natural causes?

A. I assume that they are.

Q. And you say they are sometimes extreme?

A. Yes, sir.

Q. That is, they fluctuate 3 or 4 feet, I believe, as you have stated?

A. Well, in a number of years they may.

Q. It was stated here the other day, I think it was by Captain Marshall, that the fluctuations had been as much as 5 feet in a single day?

A. Yes, it has been; that was in a very remarkable case where it happened, but it is only from special causes.

Q. In your charts showing the depth of the water in the Chicago river, what do those soundings that are marked on the maps indicate—what particular depth?

A. Well, that is a different case; I believe the city referred them to city datum.

Q. Does it mean that there is so much depth of water below the city datum; that is, below what was meant by city

Evidence before
Master.

datum, to wit, the extreme low water on a certain day in 1847?

A. It would mean that if they have reference to the city datum, but that in different in different cases.

Q. How is it on your government maps?

A. We have, for a number of years, referred to what we call United States harbor datum, which is one foot above city datum.

Q. Your maps don't show depth of water at extreme low water?

A. Very seldom.

Q. Your attention was called and reference was made to this map marked Exhibit E, to the lines indicated on the map marked, "Proposed south breakwater"?

A. Yes, sir.

Q. An also to the lines west of the last, called United States dock line extended. Will you state whether the government breakwater was afterwards built approximately upon the line marked "Proposed south breakwater"?

A. Yes, sir.

Q. And is it there still?

A. It is there still; yes, sir.

Q. Will you state whether the United States dock line has been actually extended?

A. Yes, sir.

Q. How far south?

A. I don't remember exactly; but I believe it is from the point in line of Van Buren street extending south, but whether it limits the line to this east and west line I don't remember.

Q. What does that line indicate?

A. That no docks or wharves have been built east of that line.

Q. Does it indicate that docks may be built to that line?

Mr. Hamline: Object to that.

A. No, sir.

Q. Does not this line indicate the line to which docks may be extended if the plans are approved by the War Department?

3-22-43 Mr. Hamline: I object on the ground that it doesn't appear that this witness knows, and in the next place, that what the War Department has authorized is best evidenced by the records of the War Department. There must be a writing, and that writing is the best evidence.

The Master: The witness may answer the question for the purpose of testing his knowledge. It is true, however, that the order itself is the best evidence, and should be produced.

Mr. Hamline: Exception.

A. I would hardly be understood to answer directly, but I assume that is the case, provided that said wharves are authorized, but if it is an order I would add that we have one map on file in the office on which it is stated and noted that no wharves or docks shall be built as indicated by red lines, or something like that, until the question of the riparian rights has been definitely settled, or something to that effect.

Q. Can you produce from your office a copy of the order extending this dock line?

A. Yes, sir.

Q. Will you be kind enough to do so?

A. Yes, sir; subject, of course, to authority from Captain Marshall.

Q. What you have said with reference to the sounding on the map last referred to is true, is it not, of both the other maps to which your attention has been called?

A. That is as far as I would know, as I didn't make the surveys for the other maps.

Q. As far as you have any knowledge or belief?

A. Yes, sir.

Q. Have you any map in the engineer's office showing the wharves and docks immediately adjacent to the north pier, on the north side of the pier?

A. Yes, sir; the docks built out here?

Q. Yes.

A. Yes, sir.

Q. Can you produce a copy of that?

A. I think so; yes, sir.

Q. Showing the present condition of the works immediately adjacent to the north pier?

A. Not up to the present date, but when the last survey was made.

Q. I will ask you whether the surroundings shown on the map marked Exhibit A, and the map marked Exhibit D, indicate the depth of the water with reference to the same standard gauge or mean level?

A. The gauge is stated there, but they don't state the same, and of course it would be impossible for me to testify as to what some other surveyor did some 23 years ago.

Evidence before
Master.

Q. Does it appear from either of these map how that fact is?

A. It appears to be that evidently, or approximately, that they have reference to a plane on the light house, I think, and could be ascertained by taking levels from that.

Q. It doesn't appear on the map marked Exhibit D to what level the soundings are referred?

A. It don't appear there.

Q. And you don't know anything about it?

A. No, because I didn't make the survey.

Q. How is that in regard to map marked Exhibit A?

A. There is a note stating what the soundings have reference to.

Q. Have you any personal knowledge in regard to that matter? All you know is what is stated there?

A. All I know is what is stated there; I didn't make the survey.

Q. Will you state how long you have lived in Chicago?

A. Since 1871, in April.

Q. During that period, what has been the harbor of the city of Chicago?

Mr. Hannum: I object to that.

A. I don't know exactly; has been partly the river and partly the outer harbor ever since that was built, and the outer harbor has been the protected area south of the breakwater—been gradually increased the harbor area.

Q. Was there any outer harbor prior to 1869?

A. No, sir.

Q. Was there any harbor then?

A. The river formed the harbor.

Q. Except that formed by the river and its branches?

A. No, sir.

Q. Prior to October, 1869?

A. No, sir.

3-22-41 Q. Have there been any harbor improvements made outside of the river and south of the north pier within the limits of the city except by the Illinois Central Railroad Company?

A. Yes, sir.

Q. By whom?

A. By the United States Government.

Q. To what improvements do you refer?

A. The east breakwater and the south breakwater.

Q. Have any wharves been constructed, or any other aids to commerce, direct aids to commerce?

Evidence before
Master.

A. Not that I know of.

Re-direct examination.

Q. I believe you said these surroundings on maps Exhibits A and D, in your experience in the engineering department, were referred approximately to the mean lake level?

A. I presume they are.

Q. Now, whatever that gauge was, to cover the fluctuations from day to day, all of these soundings marked on these maps bear the same proportion to it?

A. Yes, sir. They are all referred to one horizontal plane.

Q. In other words, calling your attention to this map Exhibit A, that horizontal plane is supposed to be the mean lake level which is about a foot and half above city datum?

A. That horizontal plane is one adopted for each separate survey, and may be the same plane adopted for a number of surveys, but at the same time, one surveyor may adopt the low water of 1842, and another may adopt the high water of 1848, and it wouldn't make any difference what it was, but all the soundings on one map have reference to one horizontal plane.

Q. What that plane is may be different on each map?

A. It may be, yes.

Q. Taking this map Exhibit A, the extreme figure on the north next to the shore on Hinsdale street, 14 feet, and the extreme figure on the south being at the end of the break-water opposite the Illinois Central Railroad Company's machine shop; if it was actually fourteen feet deep at the north on that day, then it was actually 12 feet at the south?

A. Yes, sir.

Q. And so all the way all through these maps?

A. Yes, sir; the same.

Q. They bear the same proportion?

A. Yes, sir.

Q. You took some field notes, didn't you, figures, field notes.

A. Yes, sir.

Q. At the same time you made this map of 1878?

A. Yes, sir. I made the map from those notes.

Evidence before
Master.

Q. This map of 1878 was referred to a plane of mean lake level which you said was 1.95 above the low water of 1847?

A. No, 1.8 above.

Q. Have you got your note book with you?

A. Yes, sir.

Q. I wish you would refer to this sounding nearest the exterior breakwater and bearing the mark 16 foot and 3-10.

A. When I constructed the map I called these stations either by number or letter, and after the map was finished. This wasn't made for a law suit, it was made to show the breakwater.

Q. Have you your field notes?

A. Yes, sir.

Q. They contain memoranda of the actual soundings you made?

A. Yes, sir, and the reduction made on each line.

Q. And the reduction is made as printed on this map. Now, can you tell us how much of a reduction you made?

A. For instance, take any line, I can tell the lines here.

Q. Where is it on the map?

A. That is pretty hard for me to tell, because I haven't got the stations marked on the map. There is buoy 2, but I don't remember now which is buoy 2.

Q. State, as a matter of fact, whether or not the actual depth of the water at the time you took those soundings was deeper than the soundings represented upon the face of this map.

A. Yes, sir.

Q. Hanging about how much?

A. I can tell exactly what they were. On May 1, at 7:30, the gauge read 0.3; that means that the water level at that time was five-tenths higher than the mean lake level 3-22-45 of Lake Michigan; or, in other words, it was 2 3-10 feet above Chicago city datum. On the 3rd, at 7:30 a. m., the gauge stood at 0.2; that means exactly 2 feet above Chicago city datum. On the 3rd, at 4 p. m., the water was 0.9 above the zero of the gauge.

Q. That would indicate how much below the low water mark of 1847?

A. Nine-tenths is above the mean lake level. On the 4th, at 7:30 a. m., it was 0.5 above. On the 7th, at 7:15 a. m., it was 0.8. On the 7th, at 11 a. m., it was 1 foot and 1-10 above.

Q. Then from May 1 to May 7 there was a range of from 2-10 to 1 foot and 1-10 above the mean level?

Evidence before Master.

A. Yes, sir.

Q. And the soundings taken on those various days were as much deeper than the figures that appear on this map Exhibit E, as those readings were on those days above the mean level?

A. Yes, sir.

Q. And the soundings were reduced on this map to the mean level?

A. Yes, sir.

November 9, 1894.

BRENTON R. WELLS, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. My name is Brenton R. Wells; age 42; residence, 4853 Lake avenue; occupation, wholesale boots and shoes.

Q. How long have you lived in Chicago?

A. Towards of 33 years.

Q. You are a member of the firm of M. B. Wells & Company, boot and shoe dealers?

A. Yes, sir.

Q. State whether or not you ever lived in the vicinity of 16th street, in the city of Chicago?

A. I lived at the corner of Prairie avenue and 16th street.

Q. That is, next to the lake shore at 16th street?

A. Yes, sir.

Q. Which corner did you live on?

A. I lived at the end of Prairie avenue; the north end of Prairie avenue.

Q. Immediately north of 16th street?

A. Yes.

Q. And at the extreme east end of 16th street?

A. The extreme east end of 16th street and the north end of Prairie avenue.

Q. How long did you live there? Between what years?

A. I lived there from 1879 to 1890, I think; about 11 years.

Q. What was next east of your property?

A. Illinois Central railroad.

Evidence before
Master.

Q. And beyond the Illinois Central railroad, what came next?

A. Lake Michigan.

Q. I will ask you whether or not you ever took any photographs of the territory intervening between your property and Lake Michigan and thereabouts?

A. Yes, I took photographs east of my property which took in part of the property and part of the lake directly east.

Q. I will ask you to look at these photographs and state whether or not you took them?

A. I did.

Q. At about what time?

A. I took them early in the spring of 1888.

Q. About what time in 1888?

A. Well, it was the last of February or the first of March.

Q. Calling your attention to this photograph which I will designate in a minute, and which I propose now to offer as Exhibit II, I will ask you to state what territory that photograph covers?

A. Well, it covers a part of the Illinois Central.

Q. Kindly state what territory that covers.

A. Covers part of the Illinois Central track and the break-water, and part of the piling that they put in east of 16th street in the lake front and east of my property there, that I occupied.

3-22-46 Q. I will ask you what condition the lake was in at the time this picture was taken?

A. I think there was considerable ice and snow—floating ice—at that time.

Mr. Hamline: I offer that in evidence as Exhibit H.

Mr. Ayer: We note an objection to the admission of the evidence; we don't see that it is material or relevant to the question in this case.

Q. I will call your attention to this other photograph you said you made in March, 1888, which I propose to offer in evidence as Exhibit I, and ask you what territory that covers.

A. That is about the same territory, a little farther to the north, more directly opposite to my lot, most of it a little north of my lot.

Mr. Hamline: This is offered in evidence as Exhibit I.

Mr. Ayer: We make the same objection to that as to the previous photograph.

Q. I call your attention to this photograph that you said you made in March, 1888, which I propose to introduce as

Exhibit J, and ask you what territory that covers with relation to your lot?

A. That is partially directly east and a little to the north-east.

Q. Is that still farther north, the bulk of it, than the last photograph?

A. Yes.

Q. And that is Lake Michigan out beyond there covered with ice?

A. Yes, sir.

Mr. Hamline: I offer that in evidence as Exhibit J.

Mr. Ayer: We reserve the same objection.

Q. I will ask you what that building, the roof of which appears in this picture, was?

A. It was my barn.

Q. And your lot ran south from that barn for a considerable distance parallel to the Illinois Central Railroad tracks?

A. Yes, sir.

Q. About how deep was your lot north and south?

A. In the neighborhood of 175 feet, more or less; a little more, I think.

Q. I will ask you whether anything intervened to obstruct the view from your house out over your lot to the east over the property that appears upon the face of this photograph?

A. No, sir, excepting a moving train; something of that kind, nothing permanent.

Q. And did you have that same uninterrupted view with the exception of passing trains during the years that you lived on this lot?

A. Yes, sir.

Adjourned to November 21, 1894, at 10 o'clock A. M.

November 21, 1894.

Met pursuant to adjournment.

Present as before.

Direct examination of Brenton R. Wells continued by
Mr. Hamline.

Q. Calling your attention to this Exhibit H, I will ask you if you know about what time the breakwater, the relics of which appear out in the waters of Lake Michigan running

Evidence before Master. at right angles to the shore, was constructed? About what year?

A. Well, I should say in the neighborhood of 1882 to 1884, I don't recall—you mean when it was originally constructed?

Q. This submerged breakwater running out at right angles. Calling your attention to Exhibit I, to the piles running parallel with the shore, farthest out in the lake, I will ask you whether or not about the same time the breakwater you have just testified about was constructed, there was a line of piles driven in the waters of Lake Michigan along about the same line as the line I have just called your attention to, running north and south?

A. Yes, in the neighborhood of the same time.

Q. Calling your attention to Exhibit H, I will ask you if you know when this side line of piling, running parallel with the shore was built, about what year?

A. Well, that was previous, I think, to my recollection there. No, I can't recall when that was built. I went there to live in 1879, and it was something after that, but just what time I couldn't say, I don't recollect the dates.

3-22-47 Q. And how far south does that line of breakwater, parallel with the shore, being the second line of breakwater shown on Exhibit H, run?

A. South of 16th street?

Q. Yes.

A. Well, I don't know how far it runs, but it runs south of 22nd street.

Q. Do you know when the first line of breakwater shown in this Exhibit H was constructed, the one farthest in shore?

A. No.

Q. Was it an old breakwater when you went there to live?

A. Yes.

Q. When you went there to live in 1879, was there any other line of breakwater or piling between the last mentioned line of breakwater and the west line of the right of way of the Illinois Central Railroad Company?

A. Yes, there was a small line of piling there, very low line.

Q. Running north and south?

A. Running north and south.

Q. And about how far from the west line of the Illinois Central track?

A. Well, from 100 to 125 feet, I should think.

Mr. Ayer: I object to this line of examination, as being wholly irrelevant to any issue now in this case.

The Master: It seems to the Master that the scope of inquiry as to what constituted practicable navigability, having reference to the manner in which commerce in vessels is conducted on the lake, ought not to be restricted to technical limits, and while the Master desires to exercise the functions of his office and restrict inquiry irrelevant and immaterial it is impossible for the Master in advance to mark out a clear and definite line beyond which testimony ought to go. The objection to this examination is overruled.

Q. How near to this line of piling did the water of Lake Michigan come?

A. Well, directly opposite my house it came up to the piling.

Q. That line of piling was about half way between the west line of the right of way of the Illinois Central railroad and this line of piling that appears farthest in to the shore on this Exhibit H?

A. I should think it was nearer, two-thirds of the way.

Q. I believe that you testified that your house was about 50 to 150 feet north of 16th street. The front of your house was about how near to the north line of 16th street?

A. The south line of my house was about 15 feet from the fence line.

Q. And your house is back about how far, how many feet north and south?

A. Thirty-five feet, I should think, possibly 50.

Q. With respect to this line of breakwater, you testified about this low line, but which does not appear in this Exhibit H, where did the water of Lake Michigan stand north of 16th street?

A. I don't understand, really.

Q. You just testified about a low breakwater?

A. Yes.

Q. At the time you went there in 1879, where did the water stand with relation to this breakwater as it ran north of 16th street?

A. I think north of my lot it didn't come to the breakwater, or north of my house; I don't think it came about opposite to my house; it came up to the breakwater, then it sort of receded.

Q. Do you know whether or not there was any change

Evidence before Master. in the water line between the year 1879 and the year 1887, opposite your house?

A. Yes.

Q. What was that change?

A. It was filled in between the two breakwaters; between the low breakwater and the outer breakwater, the second breakwater.

Q. The breakwater that appears farthest west on this Exhibit H?

A. Yes.

Q. Do you know who filled it in?

A. No; I know it was filled in by teams that brought in rubbish and dirt of all sorts; who did it, I could not say.

Q. Now, in 1887, at the time this map, Exhibit F, was made, marked May 12th, 1887, or prior thereto, do you know of any vessels being launched south of the south line of lot 21?

A. Yes, I do.

Q. About what year was that vessel launched?

A. I think in 1886.

3-22-48 Q. Do you recollect the name of the vessel?

A. No, I do not; it was built by Booth, and I think named after a daughter; I have forgotten the name.

Q. Do you recollect whether the name was Vernon?

A. Yes, it was.

Q. What was that vessel, sailing vessel or steam vessel?

A. Steam vessel.

Q. Describe generally what it was.

A. I think it was a vessel about 100 feet long, pretty good sized steamer.

Q. Propeller?

A. Yes.

Q. Where was it constructed with reference to this map, Exhibit F, and the shed marked thereon?

A. It was launched just east of this shed on this exhibit. (Witness points to a square diagram just near the south line of lot 21, marked "shed.")

Q. Which way did the boat lay on the stocks?

A. Nearly north and south.

Q. And what was it launched into?

A. Launched into this basin.

Q. Waters of Lake Michigan?

A. Yes; this basin directly east of the shed.

Q. And as you recollect, with reference to this map,

about where was the south line of that boat standing, immediately prior to its launch?

A. Well, it was built near this shed, and extended probably about 100 to 150 feet south of that shed, I should think.

Q. About to the memoranda of this plat marked "Line of old piling"?

A. Well, I couldn't say as to that.

Q. Approximately?

A. Yes, in that neighborhood.

Q. I will ask you whether or not the stocks on which that boat stood were standing upon dry land at the time the boat was being built?

A. Partially. I think some of the stock extended out a little into the water.

Q. State, if you know, whether or not the dry land on which those stocks stood had, since the year 1879, been covered with water? Has it been covered since?

A. Yes, it has.

Q. Then the boat stood on land which as late as 1879 was water?

A. Well, partially; part of the stocks were in water in 1886.

Q. Now I will ask you whether or not that portion that was land in 1886 and on which the stocks stood, was water in 1879?

A. Well, I couldn't say.

Q. You don't recall whether or not it was filled in?

A. No, I don't recall the filling in at that point where the shed was and about where the boat was.

Q. About how many tons do you recollect that boat to have been?

A. I haven't any recollection of hearing what it was.

Q. Good sized propeller?

A. Large sized propeller, 100 feet long should be. Good sized propeller drawing from 6 to 10 feet of water.

Q. Think it was as large as a 750 ton boat?

A. I am not a judge of the tonnage of a boat, and I couldn't—

Q. About how high did the boat stand?

A. I couldn't say that.

Mr. Ayer: It is understood that all this line of examination is objected to.

Q. Was it higher than your head, or four times higher?

A. Yes, fully four times as high.

Evidence before
Master.

Q. About how wide was this boat?

A. I should think it was 20 feet, perhaps more.

Q. After the year 1882, when this line of piling was built at right angles with 16th street and parallel with the shore some 600 feet west of the west line of the right of way of the Illinois Central railroad, state, if you know, whether or not any boats entered into the basin thus constructed between 1882 and 1887?

A. Yes.

Q. What were they laden with?

A. Dirt and debris of various kinds.

Q. What kind of boats were they?

A. I think they were what are called dredge boats.

Q. What was done with their contents?

A. Dumped into that basin.

Q. What effect did that have upon the basin?

A. Have the natural effect of filling it.

3-24-49 Q. Shallowing it?

A. Yes.

Q. Do you recollect about the years that that took place?

A. Well, no, I don't, but it was previous to 1887, between 1882 and 1887.

Q. Do you know who superintended that filling in front these boats?

A. No, I don't know; it was generally understood that the Illinois Central—

Mr. Ayer: No matter, if you don't know, please don't state.

Q. Do you know who the dredges belonged to?

Q. Was there any considerable number of these boats?

A. Yes.

Q. And when they were at work, were they at work continuously?

A. Well, they worked there a good many days; the boats came in—of course I didn't see them through the day.

Q. But you knew they were down there weeks at a time?

A. Well, I couldn't say weeks, I couldn't say how long, but a good many days.

Q. They came into that basin that was created by this line of piling in 1882, laden with debris, and dumped it into the water enclosed within this line of piling?

A. Yes, sir.

Q. Do you recollect whether or not between the year

1879 and 1887 when this Exhibit F was made, the shore north of the south line of lot 21 was filled in—the water was filled in?

Evidence before
Master.

A. Yes.

Q. How continuous was that work between 1879 and 1887?

A. I don't remember when they commenced to do it, but it continued until they filled in to that shore line there; on that Exhibit F, I couldn't say what year they did commence to fill. It was kept up continuously until it was filled.

Q. Do you recollect who that filling in was done by?

A. No, I couldn't say positively who it was done by.

Q. In what manner was it done?

A. Done by teams of various kinds, all sorts of rubbish teams, grocery wagons and regular dirt wagons, and carts of all kinds.

Q. Do you recollect any officers of the Illinois Central railroad ever making any statements as to who was superintending the filling in down there?

A. I think I attended a meeting at one time in the court house in which the railroad people claimed that they were not doing it themselves.

Q. What claim did they make?

A. Claimed they were allowing people to dump their rubbish there, bring it in, as a dumping ground.

Q. Who was superintending where the dumping should take place?

A. Think they claimed their own men were.

Q. About what year was that meeting?

A. I think it was in 1887 or 1888.

Q. Do you know who representing the railroad was present at that meeting?

A. Mr. Ayer was present, I believe, at that time.

Q. General counsel of the road?

A. Yes.

Q. State whether or not immediately prior to that meeting a great deal of dumping had been going on north and south of the south line of lot 21?

A. Yes.

Mr. Ayer: Wasn't that meeting after the decree was made in this case?

A. That I don't know; I think we filed a bill at that time against the filling in by the Illinois Central, the neighbors and a number of us in that neighborhood.

evidence before
Master.

Q. This was after that, wasn't it, that meeting?

A. After the bill was filed, yes.

Mr. Hamline: Calling your attention to Exhibit J and the smoke stack visible at the north end of said exhibit, I will ask you whether or not, in the year 1879, the water line of Lake Michigan didn't come up practically to that smoke stack?

A. Yes, it did, very nearly.

Q. And drawing a line from said smoke stack, imaginary line, to the inside line of piling that appears on this Exhibit J, I will ask you whether, in 1879, the water line of Lake Michigan lay east or west of such a line?

A. I think parts of it would come west; perhaps most of it west.

Q. I will ask you whether or not, as a matter of fact, in 1879, the bulk of territory east of such imaginary line was not covered by water?

A. Yes.

3-22-50 Q. On this Exhibit J, photograph you have taken, I observe north of the smoke stack running out at right angles from the shore, a long dark line, what is that?

A. That is a pier built, as I understand, by the Illinois Central road.

Q. That the 13th street pier?

A. Yes, sir.

Q. I observe a series of what looks on this photograph to be blocks, standing on this pier; what are those?

A. Those are cars.

Q. Railroad cars?

A. Yes, sir.

Q. Calling your attention to Exhibit I, introduced in evidence, being one of your photographs, I observe some water standing west of the inside line of piling on said exhibit—what appears to be water; is that water?

A. Yes, sir.

Q. I will ask you how near to this line of piling, inside line of piling on Exhibit I, that propeller Vernon struck the water of Lake Michigan in its launch, approximately?

A. You mean at this point?

Q. Yes, where it slid out.

A. Might have been 100 feet, 100 to 150 feet at this point. It was very near at the north point.

Q. It slid over to the south?

A. Yes, half way perhaps between the two pilings, this piling and the outer piling.

Q. Calling your attention to Exhibit J, I will ask you whether or not the steamer or propeller Vernon was launched right over this inside line of piling that appears upon said exhibit.

A. That I couldn't say.

Q. How long since you moved away from the vicinity of 16th street?

A. Four years and a half, I think.

Q. That would be 1890?

A. Yes.

Q. Do you recollect the construction of a dock at 13th street by the Illinois Central in 1885?

A. I remember the construction of the dock; I don't remember the year.

Q. That large pier there?

A. Yes.

Q. You live in the south part of the city, do you not?

A. Yes.

Q. And do you come up to your place of business in the city by the Illinois Central railroad every day?

A. Not every day; I do frequently.

Q. Has such been your custom since 1879?

A. No, I never used the railroad up to 1890.

Q. Never did up to 1890?

A. Very seldom.

Q. You do now quite frequently go by the dock at 13th street?

A. Yes, sir.

Q. Do you have occasion to look at that dock as you pass by?

A. I have looked at it, yes.

Q. Quite frequently?

A. Yes.

Q. Did you ever see a vessel tied up to that dock?

A. No, sir.

Mr. Ayer: Water isn't deep enough, is it?

A. I couldn't say, I am sure.

Q. (Mr. Hamline): As a matter of fact, as a result of your observation, do you know what that dock has been used for?

Mr. Ayer: I objected to the question.

Evidence before
Master.

A. Been used for the standing of cars; tracks laid there and cars stand on them.

Q. Dead trains of freight cars?

A. Yes, sir.

Mr. Ayer: Loaded cars?

A. That I couldn't say.

Q. (Mr. Hamline): Do you recall since 1888 or 1889 some docks being built at 16th street over the territory that is photographed in Exhibits H, I and J?

A. Yes.

Q. I will ask you whether or not the outside line of those docks, the extreme east line of those docks, is about the same line as the outside line of breakwater shown in this Exhibit I?

A. Yes, it is.

Q. And which direction do those docks run?

A. North and south.

Q. Is there a slip in between?

A. Yes.

Q. State whether or not you had occasion to look over that slip from time to time as you passed by on the cars of the Illinois Central railroad?

A. I have noticed it frequently, yes.

Q. Ever see a boat in there?

A. No.

Q. I will ask you whether or not those docks have been built within and over the water enclosed with this line of breakwater that you have described as having been built in 1882?

A. Yes.

3-22-51 Q. Do you know who those docks were built by?

A. I don't know, I couldn't say positively, I suppose the Illinois Central railroad.

Q. Ever hear any officers of the Illinois Central railroad say anything about those docks at 16th street?

A. Yes, I have.

Q. What was it?

A. At this meeting that I previously referred to, I heard Mr. Ayer say that those docks were calculated to be built for sort of a harbor.

Q. Do you know whether or not it would be possible for a boat to run into that slip in a storm?

Mr. Ayer: I object to the question; it is not a harbor of refuge.

Q. Do you know, as a matter of fact, whether boats could possibly get in there?

A. I wouldn't think it possible.

Q. Supposing there were a storm from the south, could a boat possibly lie in that slip?

Mr. Ayer: Objected to.

A. I wouldn't think it could.

Q. What did Mr. Ayer say at this interview, that this harbor was to be used for?

Mr. Ayer: I object to that as incompetent.

A. My recollection is, it was a harbor of refuge.

Q. State, if you know, whether or not this line of breakwater built in 1882, running south from a little north of 16th street, protected the tracks and property of the Illinois Central railroad company from the ravages of Lake Michigan?

A. Yes.

Q. State whether or not if that same line of breakwater had been continued north in front of the property of the Illinois Central railroad, on the same line, it would have protected such property of the Illinois Central railroad?

A. I should think it would.

Q. Calling your attention to the old used up breakwater running back to the years before your time, and which appears farthest west in this Exhibit H, I will ask you whether or not, if that breakwater had been restored, it would have protected the shores of Lake Michigan and the property of the Illinois Central Railroad Company from the ravages of Lake Michigan?

A. I should think it would.

Q. Now, do you know what this new dock, that was built some years after you took these photographs, had been used by the Illinois Central for?

A. I didn't take those photographs. (Indicating.)

Q. Built some years after these photographs were taken that have already been introduced in evidence. Do you know what those docks have been used for by the Illinois Central railroad?

A. Shown on that photograph?

Q. Yes. I will ask you, calling your attention to this photograph that I intend to introduce in evidence as Exhibit K, whether or not that is an accurate representation, so far as it goes, of the present condition of those docks, and that slip north of 16th street?

A. Yes, sir, I should say it is.

Evidence before
Master.

Q. And I will call your attention to this photograph that I intend to introduce as Exhibit L, and ask you if that is an accurate representation of the same territory, showing a little more north?

A. Yes.

Q. As it is at present. Calling your attention to this photograph I propose to introduce in evidence as Exhibit M, I will ask you whether that is an accurate representation of the south end of the dock at 16th street as it is shown on the photograph?

A. Yes, sir.

Q. I will ask you whether or not the opening to this slip and the two ends of docks on either side thereof, as shown on either side thereof, as shown in Exhibit M, marks the south end of that slip and those docks?

A. It does.

Q. And is that coincident with the south line of 16th street, approximately?

A. Yes.

Q. Is it about coincident with the line of 16th street produced east?

A. Yes.

Q. Can you state what those docks shown there have been used for by the Illinois Central Railroad Company, since they were built?

A. I believe they have some buildings on them; also for the standing of cars.

3-22-52 Q. And standing of signs?

A. You mean advertising boards, bill-boards?

Q. Yes.

A. I don't remember seeing any.

Q. I call your attention to this Exhibit M, south end of the dock there; any signs on that dock?

A. Yes, I see signs on it.

Q. Have you observed any navigation carried on with reference to that dock since it was built?

A. No.

Q. How many tracks were there on this land next to the west line of the right of way of the Illinois Central railroad in 1879 when you went there?

A. Two through tracks and a switch track.

Q. Do you know what year those tracks were increased in number?

Mr. Ayer: I object to the question on the same grounds that have been suggested before.

A. I think about two years after I went there they put in two more tracks.

Q. That made four?

A. Yes.

Q. And then do you know when the tracks were increased again in number?

A. No, I couldn't give the date.

Q. There were six tracks there in 1888 when you took these photographs, were there not?

A. Yes.

Q. Do you know how many tracks there are there now?

A. I don't know for a matter of fact, it is simply hearsay.

Q. Do you know how the stone was brought to that locality that was used for filling in these docks?

A. It was brought in boats largely, dredge boats or canal boats. Canal boats, I think.

Q. Unloaded on these docks?

A. Yes.

Q. Do you know how those buildings that appear on this dock were brought there?

A. No.

Q. You didn't see that done?

A. No, that was after I left there.

Q. You spoke about some suit that was pending at the time of this interview, against the Illinois Central railroad; do you know what that suit was for?

A. That suit was brought to stop the filling in of the lake, and the re-piling, I think, of the pier 600 feet out.

Q. That brought by Attorney General Hunt?

A. Yes.

Q. Against the Illinois Central railroad?

A. Yes.

Mr. Ayer: Do you know that?

A. I was one of the signers of the bill at the time, I read the bill and went over it at the time myself, with a number of others were the signers of the bill. I didn't have any personal conversation with Attorney General Hunt; I understood it was brought by him, although I didn't have any personal conversation with him.

Evidence before
Master.

Cross-examination by Mr. Ayer.

Q. Referring to the photographs which you took and have produced here, will you please state for what purpose they were made?

A. Well, they were made at the time this bill was filed, to get the general situation of the condition at the time, the filers of the bill at that time talked it over and I had the instrument and I took the pictures for that purpose, to show the condition at that time.

Q. At whose request were they made?

A. I couldn't just tell, but I guess Mr. Shortall and Mr. Hamline, and perhaps Dr. Johnson, I think.

Q. You speak of a suit that was commenced about that time or shortly after; do you know at whose instigation or request that suit was commenced?

A. No. I know we had several meetings in our neighborhood there in reference to the filling in by the road, bringing protest against it.

Q. Who were those gentlemen that had those meetings?

A. Mr. Hamline, Mr. Shortall, Mr. Hibbard, Dr. Johnson, Mr. Harvey, I think, Robert Law and a good many in the neighborhood of Prairie avenue between 20th street and 16th street.

Q. Was there a fund raised, do you remember, for prosecuting this suit?

A. We agreed on an assessment; I don't think there was any; don't recollect that there was any money paid in. I think we signed for— Don't remember whether any money was paid in or not.

3-22-53 Q. The parties to this plan were residents in the immediate vicinity, were they not, of the railroad?

A. Yes, sir; most of them.

Q. You went there to live in 1879?

A. Yes.

Q. Was the railroad built before or after you went there?

A. Before.

Q. You knew it was there when you built your house, didn't you?

A. Yes, sir.

Q. You built your house next to the railroad?

A. No, I bought my house. My house was already built; I didn't build.

Q. How many buildings were there standing on the east side of Prairie avenue, next to the railroad, between 16th street and 18th street, when you went there to live?

A. I think about six.

Q. Had they been recently built?

A. No, I think they had been built a good many years, most of them.

Q. How long have you lived in Chicago?

A. I have lived here about forty years.

Q. Do you know that for many years the property lying on Prairie avenue, immediately south of 16th street, was unoccupied by buildings?

A. Yes, I can recall when it was unoccupied.

Q. Recollect when Mr. Dexter built his house?

A. I do.

Q. Was that the first house built between 16th and 18th streets?

A. I don't think Dexter built it; I remember he remodeled it.

Q. Remember who built it?

A. I remember a party lived there before; I think it was Van Dorn.

Q. Was that the first house that was built?

A. I can't recall whether that or the Forsyth house.

Q. Remember what year that was?

A. No, sir. It was before——

Q. Remember when Mr. Shortall built his house?

A. One he lives in at present?

Q. Yes.

A. Yes, sir.

Q. When?

A. No, I don't; I couldn't tell the date; I think it was after—— No, I couldn't remember the date, but it was, I should think, in the neighborhood of 1884 or 1885.

Q. You gentlemen felt annoyed, I suppose, in consequence of the increase of business on the railroad and of the occupation by the railroad company of more tracks?

Mr. Hamline: I object to the question as being immaterial, irrelevant and incompetent and requiring another issue to be tried in this case, which is not in this case, and that is as to how great a nuisance the Illinois Central Railroad Company has been to adjoining proprietors.

A. Well, I think the annoyance was that they were filling up to make more land; don't think it was the increase of

Evidence before
Master.

business particularly. Annoyance was, they were making land that we didn't feel they were entitled to make; that was the annoyance.

Q. South of 16th street, state whether the Illinois Central Railroad Company has, between 16th street and 26th street, occupied anything more than its 200 feet right of way?

A. I couldn't say, I am sure.

Q. Now, these photographs which you made and which have been introduced in evidence; will you state whether they show accurately the condition of the lake front in the vicinity of your house during the whole period that you lived on 16th street?

A. No, they do not; they show the condition at that time, and a short time previous and since.

Q. In what do they fail to show the previous condition, if they do, previous to the time they were taken?

A. Previous to the time they were taken there was considerable more water there, and since then there is considerable less, if I understand you right.

Q. Is that the only respect in which there has been any change?

A. Oh, no, there has been, previous to that, there was another line of breakwater there which doesn't show in these pictures.

Q. Will you please state where that line of breakwater was and what it was?

A. Well, it was a breakwater similar to this but much lower, and I should say from the west line of the Illinois Central right of way to this breakwater was in the neighborhood of 100 to 150 feet; a low line of breakwater, which this picture doesn't show, had been filled in, in the meantime.

3-22-54 Q. Will you please look at the photograph marked Exhibit I? I call your attention to the outer line of breakwater shown on that picture; will you state how far south, approximately, that line of breakwater, as shown in the picture, extends?

A. At the present time?

Q. No, did then.

A. To a line about opposite 16th street. This had been washed away in the meantime; at that time and farther along it appeared again.

Q. What had been washed away in the meantime?

A. I guess you don't quite understand. This breakwater originally continued here to 16th street; at the time this was taken part of it had been washed away, leaving the broken condition of it at that time.

Q. Do you know how that breakwater was constructed; what it consisted of?

A. It consisted of piles that were so protected that it had stone between the piles, two rows of piles.

Q. Ain't you mistaken about that; wasn't it crib work instead of piling; cribs that were made and taken out there and sunk, loaded with stone?

A. Now, it might have been so. I think cribs were taken there some time, but these original rows of piling—

Q. That row of piling extended originally down as far south as 16th street?

A. Yes.

Q. 16th street extended into the lake?

A. Yes.

Q. When was that line of breakwater constructed?

A. In the neighborhood of 1882; between 1882—I couldn't say just what date, but in the neighborhood of 1882. Two years or more after I went there to live.

Q. Was not that a portion of that line of breakwater constructed as early as 1870?

A. No, not that breakwater.

Q. Well, then, was this a continuation of a breakwater which had been previously constructed in 1870?

A. Not that I know of; I think not. Might have been considerable farther north.

Q. Will you state what the limits are of this photograph marked Exhibit I, on the north and south?

A. I should think the north limit was pretty near the line of lot 21 and the south limit was—

Q. Which line of lot 21?

A. The south line.

Q. And the south limit?

A. The south limit was perhaps 300 feet north of the 16th street line extended.

Q. I find that the picture doesn't extend as far north as I supposed. Now, will you state whether north of the limit shown on this picture, there was a pier on the same line as the outer pier shown in the picture, which had been built as early as 1870?

A. I couldn't say as to that.

Evidence before
Master.

Q. Was there an old pier there, of which this pier shown on Exhibit I was a continuation?

A. This old pier there, but I think this pier was built farther east than that pier, that would be my recollection of it, I couldn't say positively.

Q. Did you ever see any vessels navigating the lake within the line of breakwater, the exterior line of breakwater shown on your photograph Exhibit I, or your photograph Exhibit H?

Mr. Hamline: Objected to as immaterial.

A. I can't recall that I ever have, except the launching of that boat.

Q. I now call your attention to your photograph Exhibit H; will you state what that outer line, apparently of piling, represents, it is a broken line?

A. It would be a continuation of the line of breakwater in Exhibit I south; it is the original continuation washed away by the storms.

Q. When was that washed away, and how much of it was washed away?

A. Well, I should say in the neighborhood of 1884, and several hundred feet of it.

Q. Was there a severe storm then?

A. One severe storm broke away a good deal of it, then continued storms for several years. It first broke away some years before this was taken.

Q. It only broke away that portion that was exposed at the surface, didn't destroy the lower part, did it, of the breakwater?

A. Parts of it were entirely out of sight, I couldn't tell.

3-22-55 Q. You say that that pier work or crib work, whatever it was, was loaded with stone?

A. Yes, at one time it was; couldn't say whether it was at the time this picture was taken or not.

Q. Do you know whether or not that stone and that pier work and crib work remained in place and continued there after that storm, clear down to the time these pictures were taken?

A. Portion of it did.

Q. Do you know whether or not the whole did?

A. No, I couldn't say; I have seen boats come across where it was broken away.

Q. What kind of boats?

A. Row boats.

Q. Did you ever see vessels there used in commerce cross there?

A. No, sir.

Q. Where was it you saw this vessel launched—this propeller that was launched?

A. In relation to those pictures?

Q. Yes.

A. This would hardly show it; would be considerably north of the water line shown in this Exhibit I.

Q. It was at the point north of the basin, as I understand, shown in Exhibit J?

A. Yes.

Q. Your photograph marked Exhibit J?

A. Yes.

Q. What year was that?

A. 1886, I think.

Q. Ever see any other vessel constructed there? No ship yard there, was there, no regular ship yard?

A. Yes, I think there was a good sized yacht built there.

Q. About a year or two before?

A. I think so. There was quite a good sized yacht built there before the steamer was built.

Q. Will you state whether or not the water adjacent to the 13th street pier, as it is called, I mean that pier built by the Illinois Central which extended out into the lake at the foot of 13th street, is deep enough to allow vessels of ordinary size used in the navigation of Lake Michigan, to approach the sides?

Mr. Hamline: Objected to on the ground that it don't appear that he knows anything about the depth.

A. I don't know anything about that pier, nor the depth of the water.

Q. Will you state whether or not the depth of the water is sufficient to allow vessels of the ordinary size to enter the slip at the foot of 16th street?

Mr. Hamline: Objected to on the ground that he don't know the depth.

A. Don't know anything about the depth of the water at the point then at that time.

Q. The filling that you say was done on the east side of the railroad tracks near your old residence; do you know whether that was done by the city authorities, or at the request of the city authorities? Whether in a large measure it consisted of material that was taken from the streets by persons employed by the city, or under contracts with the city

Evidence before
Master.

and deposited there at their request and for the accommodation of the city?

A. No, I do not know that.

Q. You know of no other vessel constructed in that vicinity except in the two instances which you have mentioned?

A. No, sir.

Re-Direct Examination.

Q. Don't you know that Mr. Smith, the ice man, who built the Vernon, built the propeller Anderson in 1885, and the Booth in 1884, just north of this enclosed basin enclosed by this breakwater of the Illinois Central? Just north of the line of piling shown on Exhibit J?

A. Since you speak of it I would think there was another boat built there, but I had forgotten it, and I couldn't state positively now what time it was. I remember the Vernon very well.

Q. As a matter of fact that particular locality had been used for a number of years for the purpose of building boats and launching them?

A. I don't remember seeing anything but small boats built there; I have seen small boats there, and the yacht.

Q. Besides the propeller Vernon?

A. Yes, sir, remember a pretty good sized yacht built there.

Q. Don't you recall that Arrow built there?

A. No.

3-22-56 Q. Don't you recall another propeller built there named the Booth, or Anderson?

A. Yes, I have a slight recollection, since you recall it, of there being another boat built there.

Q. A propeller about the same size of the Vernon?

A. I can't remember.

Q. Good sized boat?

A. Yes, good sized boat.

Q. This Mr. Shortall you spoke of on cross-examination, had a house on the west side of Prairie avenue, did he not?

A. Yes, sir.

Q. And you don't know of his having built a house many years prior thereto on the same side of Prairie avenue in that same block?

A. Yes, sir.

Q. About how many years ago was that?

A. I should say 20 to 25.

Q. You were asked whether or not the Illinois Central had filled in between 16th street and 26th street; don't you know, as a matter of fact, they had filled in very extensively immediately south of 26th street?

A. That wasn't the question asked me; if they occupied more than their right of way of 200 feet.

Q. Don't you know they occupied considerably more than their right of way of 200 feet immediately south of 26th street?

A. Yes.

Q. Car shops?

A. Yes.

Q. Don't you know that land was made by filling in the lake, at 26th street?

A. That I am not familiar with, the filling there, at all.

Q. Don't you recollect filling was going on there for years?

A. I merely saw the wagons going across the track there with dirt in them, but where the filling was, I don't know.

Q. Mr. Ayer drew out from you the fact that the neighbors were annoyed by the Illinois Central Railroad, and you and residents in that neighborhood were annoyed by the road. Who succeeded you in the occupancy of your house?

A. I think an assistant attorney connected with the Illinois Central.

Q. What was his name, Fentress?

A. Yes.

Q. General solicitor of the road?

A. Don't know just what his capacity was.

Q. Know how long he stayed there?

Mr. Ayer: I object to this.

A. Only a very few days.

Q. Know why he left the house?

A. Only by hearsay.

Q. Why was it?

Mr. Ayer: Objected to.

A. Annoyed by the road.

Q. Did he buy your carpets?

A. He bought part of my furniture; no, he didn't buy my carpets, he bought part of my furniture.

Q. And moved out within a few days after he moved in?

A. Yes.

Q. That was about what year?

A. 1890, I think.

Evidence before
Master.

November 21, 1894.

JOHN G. SHORTALL, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct Examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. John G. Shortall, Chicago.

Q. What has been your occupation during most of your life, Mr. Shortall?

A. The examination of titles to real estate in Cook County and the city.

Q. Have you had occasion in that business to become familiar with the land situated in the city of Chicago?

A. Yes, sir.

Q. And how long have you resided in Chicago?

A. Forty years.

3-22-57 Q. Will ask you to state whether or not you have made the photographs I call your attention to? (Showing witness photographs.)

A. I made those photographs, yes, sir.

Q. When did you make them?

A. On the 15th of this present month of November.

Q. 1894?

A. Yes.

Q. And where were you when you made them?

A. On the top of the McBirney house which is numbered 1625 Prairie avenue.

Q. About how far south of the south line of 16th street is that house?

A. In the neighborhood of 200 feet south of the south line of 16th street.

Q. Does the lot face on Prairie avenue and run east back to the right-of-way of the Illinois Central Railroad Company?

A. The lot from which these pictures were taken?

Q. Does the McBirney lot face east on Prairie avenue and run back to the right-of-way of the Illinois Central Railroad?

A. Yes.

Q. Then you were standing south of the territory that is shown upon those photographs?

A. I was.

Q. Calling your attention to the exhibit that I have marked M, what territory does that cover, generally?

A. From the line of about 150 feet south of 16th street to a point near, if not quite to the north end of the slip which is shown on it, and is about—

Q. Does it cover the south side of the slip?

A. Oh, yes; entirely.

Q. Calling your attention to the photograph which I will offer as Exhibit K, what portion of the slip does that cover?

A. That covers almost the whole slip, the entire north end of it; a small portion, a few feet, of the south end of the outer line of dock which forms the east line of the slip is cut off.

Q. And what does Exhibit L cover?

A. Very nearly the same area as that last referred to, so far as the slip is concerned, but extends farther north.

Q. Then these photographs, between them, cover the whole of what is known as the 16th street slip?

A. Yes.

Mr. Hamline: I offer those photographs in evidence as complainants' Exhibits K, L and M, respectively.

Q. Calling your attention to the dark line which appears at the north end of Exhibit L, running at right angles with the shore, apparently—what is that?

A. That is the 13th street pier or dock.

Q. Built by the Illinois Central Railroad?

A. Generally so understood.

Q. What is shown in that photograph standing on that dock?

A. A line of freight cars, I should judge; at least, it is a line of railroad cars.

Q. Calling your attention to the building that is shown on this Exhibit L, at the northeast corner of the slip, two-story building; do you know how that building was brought there?

A. No, I do not.

Q. Calling your attention to this Exhibit M, the south end—to the structures that rise over the south end; state what they are?

A. You mean the outer side of this dock?

Q. Yes.

A. Those are advertising boards and signs.

Q. About how high?

A. Well, I should think they are eight feet high at least—perhaps ten feet high. Very likely ten; I don't know but higher. They are pretty high.

Q. I will ask you if you know how many railroad tracks

Evidence before
Master.

there are on the right-of-way of the Illinois Central Railroad, between this west or inside dock at 16th street?

A. I should say, as remember them, there are 14 tracks. Measured along the north line of 16th street there is one of those 14 tracks joins or runs into another track—joins another track at about the north line of 16th street, or a little south of it, but north of the north line of 16th street I have counted 14 tracks.

Q. What are those tracks used for, if you know?

Mr. Ayer: I object to the question.

A. Practically for the storage of trash, and the occupation by freight cars and all sorts of things.

Q. Material?

A. Material, yes.

3-22-58 Q. How long have you lived in that neighborhood?

A. Since the winter of 1860 and 1861.

Q. State how long you have been in the habit of using the Illinois Central Railroad in getting to and from your residence to the heart of the city?

A. For a great many years. I have used it occasionally since it began to operate its suburban trains stopping at 16th street. More frequently lately, that is, within the past seven or eight years—for nine years, perhaps. I have used it very frequently in the evenings, and occasionally in the mornings.

Q. Coming home in the afternoon?

A. Coming home in the afternoon.

Q. Have you had occasion to see what was going on along the lake front from 16th street north to, say Van Buren street, during that period?

A. Yes, have noticed it nearly every day, except only when temporarily out of the city, all those years.

Q. Have you become familiar with the use made of the dock built by the Illinois Central at 13th street?

A. I have noticed it, I should say certainly, on an average of once every three or four days during all those years.

Q. That was built in 1885?

A. 1885 is my recollection.

Q. State what that dock has been used for during that period.

Mr. Ayer: Objected to as immaterial and irrelevant.

A. For the switching and storing of cars by the Illinois Central.

Q. State whether or not you ever have seen a vessel tied up to that dock.

Mr. Ayer: Objected to.

A. I have no recollection of ever having seen one.

Q. If you had seen one you think you would recall it, do you?

A. Certainly I would recall it, had it been a vessel of any size. It is possible that a small pleasure boat, say a 15 foot or a 20 foot boat with a single mast might have stood at that dock without my particular notice, but that any vessel of any size should have tied up at that dock, I think would have been impossible without my having noticed it had I passed it.

Q. Calling your attention to Exhibit L, I will ask you whether or not you can recall a time, if ever, when the water of Lake Michigan covered all the space now shown as land on said exhibit, and north of the north end of the slip shown in that exhibit?

Mr. Ayer: Object to that question as immaterial.

A. In 1862 or 1863 the south line of the lot which fronted on 16th street, known as Perkins or Drexel lot, part of the old Huntington tract, dipped down suddenly at about the line of Prairie avenue; dipped down suddenly there, and the railroad was carried over that upon piling, as I remember. Now, from that point, which was about the east line of Prairie avenue, the shore of the lake was at no important distance; that is, it couldn't have been more than 50 feet away. It was all water eastward then of that point, as I remember it. The two first tracks of the Illinois Central spoken of was bounded on the outside by this breakwater, also spoken of in the testimony of Mr. Wells, which I have just heard. Water lay close to that breakwater, and between it and another breakwater, which was built outside of it perhaps 50 or 60 feet beyond. The mode of operation has been to build a line of breakwater in the water, another line beyond that, and to fill in between the two. That has been the method of operation in the construction of the land upon which the Illinois Central tracks are now lying; all those tracks outside of the westerly two tracks, all the way down from the round house on the north line of this lot 21, to and below 22nd street on the south, all which has been within my daily view.

Q. Those tracks have been laid in what was formerly water?

A. What was formerly water. All these tracks east of the west two tracks.

Evidence before
Master.

Q. And those two tracks, I understand, originally ran on trestle work or piling north of 16th street?

A. There was a bit of piling where, as I said, the land suddenly dipped down to what was formerly the margin of the lake, and this was carried across that place by trestle work.

3-22-59 Q. And about where did the track strike the main land with reference to the round-house?

A. Just beyond this dip, say 175 feet beyond 16th street.

Q. This line of breakwater you testify that was farther west doesn't appear upon that Exhibit H, as I understand Mr. Wells to testify?

A. No, sir; it doesn't appear here.

Q. The other line of breakwater spoken about does appear there?

A. Yes, sir.

Q. The line farther out?

A. Yes.

Q. That is the inside or west line of breakwater that appears on Exhibit H?

A. Yes.

Q. That the farthest out? There is a line of breakwater on Exhibit H just beyond the west line of breakwater, which runs parallel with the shore, about what time was that built, if you recollect?

Mr. Ayer: I object to that question and this whole line of examination.

A. I have no distinct recollection about that exterior line.

Q. Built since the time you spoke of?

A. Oh, yes, that was built, certainly since the time I speak of, and I think this inside line of breakwater, a good deal of it, was built since the time I speak of, that it was built north of this 16th street, and probably south. I am speaking now of 1862 and 1863 and along there.

Q. Calling your attention to original exhibit number 13 in the main case heretofore introduced in evidence, and the line marked thereon, "edge of water by survey made by us December, 1881;" do you recall the time when the water stood back at that line?

A. Oh, yes, that is just as I have testified, I have never seen this map before. The lake you see is in here and this was carried over. (Indicating.) This was the old Huntington lot down here and the boys used to play in here and go down the slope or bank at the east end, and I think under that track to the lake.

Q. Carried on piling at that time?

A. I remembered distinctly the water lying in, in this way as indicated on this map, along here. I have sailed along around here to come into 16th street; I have sailed over that in a pleasure yacht.

Q. You have sailed over this land which appears made on this map east of the edge of water by survey made by Greeley and Carlson December, 1881?

A. Yes, I have.

Q. I will ask you whether or not, as a matter of fact, up to the year 1881 or thereabouts, the water of Lake Michigan didn't come up practically to the round-house of the Illinois Central Railroad which stands opposite 14th street?

Mr. Ayer: Objected to.

A. Yes, within a very few feet of it, certainly within 10 or 12 feet.

Q. Calling your attention to the photograph of Mr. Wells, Exhibit J, I will ask you if the round-house that appears just west of the smoke stack at the north end of that photograph, is the same round-house that appears marked on this map Exhibit 13, by Greeley and Carlson?

A. Yes, it is.

Q. Then since 1881, as I understand from your testimony, all of what appears on this Exhibit J as land east of the line drawn from that smoke stack down to the north line of the inner or western row of piling that appears on Exhibit J, has been created in the water of Lake Michigan?

Mr. Ayer: Objected to.

A. Yes, and much more.

Q. Now calling your attention to Exhibit J, I will ask you to state how much, if any, land has been created by filling in water between the west line of the right-of-way of the Illinois Central railroad, which is the east line of this barn shown in this exhibit, and the inner row of piling which appears in Exhibit J, since the year 1870?

Mr. Ayer: Objected to.

A. To be perfectly accurate, all the land that is shown on this photograph east of a line running parallel to the west line of the right-of-way of the Illinois Central, and to be absolutely certain, 50 feet east of that west line, has been created from or in the waters of the lake, running north to a line say 100 feet—150 feet, and of that I don't wish to speak exactly, but in the neighborhood of 150 feet—south of the round-house line.

Evidence Master.

Evidence before
Master.

Q. Do you know who that has been filled in by?

Mr. Ayer: Object to the question.

A. There are various degrees of knowledge. I have always believed it to have been filled in at the suggestion and by the permission of, if the work was not actually done by the Illinois Central Railroad Company.

Q. What is your knowledge on the subject?

A. About the time of the filing of the bill, that was in the first year of Mayor Roche's term—

Q. 1887?

A. 1887, we were very much stirred up by the invasion of the lake by the company, and we went down there to have it stopped. I spoke with Mayor Roche myself in regard to it. We were all up in arms, all along the shore, and urged the mayor to put a stop to this filling in of the lake, which he did temporarily do. The person at that time charged with filling it in was the Illinois Central Railroad, and it was against the Illinois Central Railroad that these complaints were made to the mayor. On one occasion at that time I, myself, met one of the subordinates of the railroad, and asked him—

Q. Where?

A. This was at the point where they were crossing the track with the teams to fill up this space.

Q. How near 14th street?

A. I don't know exactly, I think it was south of 14th street.

Q. Between there and 16th street?

A. Between there and 16th street, and he answered me in response to my inquiry that he was superintending the disposition of that dirt, and that he was in the employ of the Illinois Central Railroad Company.

Mr. Ayer: I object to that testimony on the ground that it is hearsay, and also irrelevant and immaterial.

Q. Was that the crossing over the tracks of the Illinois Central Railroad?

A. Yes.

Q. And all these men were depositing filling, earth and debris, at or on those tracks at the time?

A. Yes, or near them—by them.

Q. Inside of what was by the Illinois Central as their yard?

A. Yes.

Q. Now did any officer of the Illinois Central Railroad ever make any statement to you or in your presence with reference to that filling in?

Mr. Ayer: Object to that question.

A. I have made many remonstrances from time to time to various officials of the road, and particularly about that time, in regard to this filling up and the removal of the lake shore from our proximity. The answer that is clearest in my mind at this moment was that by the increase of the width of their land there, they would be enabled to relieve the vicinity of 16th street and 18th street and Prairie avenue from the burden of the extraordinary use of track by freight trains stopping there and the annoyance incident to the violent use—the cluttering up—of a railroad track, by the fact that they would be better enabled to move their trains along, by this increase of width.

Q. What width did they refer to?

A. The width between the west line of their right-of-way and the water.

Q. The width being created at the time?

A. Either created or in process of creation. Part of it created and part of it in process of creation.

Q. Prior to the construction of this slip at 16th street and the docks on either side of it, did any officer of the Illinois Central Railroad Company ever make any statement to you in your presence of the intention of the road to build those slips?

Mr. Ayer: I object to that question.

A. I have no distinct recollection on that subject. I have a general recollection that the purposes for which this slip was intended, were to enable vessels to come into it.

3-22-61 Q. As a refuge?

A. No, I don't remember such a statement as that; I have no recollection of that.

Adjourned to Friday, November 18, 1894, at 10 o'clock.
A. M.

November 30, 1894.

Continued by agreement of counsel to Tuesday, December 4, 1894, at 10 o'clock A. M.

Evidence before
Master.

Evidence before
Master.

December 4, 1894.

Met pursuant to adjournment.
Present as before.

FRANK E. LORD, a witness called on behalf of complainants, being duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. Frank E. Lord; I reside at Evanston; I am an attorney at law.

Q. What was your business in the summer of 1887?

A. I was then practicing law.

Q. I will ask you whether or not, during the summer of 1887 you made any soundings in the lake between 16th street and the south line of lot 21 mentioned in this case?

A. I did, in May, 1887.

Q. State the circumstances under which you made those soundings?

A. What do you mean; in connection with what?

Q. Yes.

A. At that time I was a clerk in the employ of Hamline & Scott, and an information was about to be filed in the State court with reference to the filling in of the lake at that point against the Illinois Central Railroad, and I went down to make some soundings, with yourself.

Q. Calling your attention to complainant's Exhibit H, stated by Mr. Wells to have been taken in 1888, I will ask you whether or not the condition of the shore and lake was similar to the condition shown up on that photograph at the time you went down there in 1887?

A. Yes, it is similar; it is not the same.

Q. What difference was there in 1887 when you went down there from what is shown in that photograph?

A. This is where 16th street extended, would cross the track, is it not?

Q. Yes.

A. There doesn't appear to be sufficient water here west of this westernmost line of piling; there doesn't seem to be any water according to this photograph, and there was at that time.

Q. I will ask you how you made those soundings; what did you make them in?

A. In a boat.

Q. Where did you launch the boat into the water?

A. Right here at the foot of 16th street.

Q. Just describe it.

A. Well, it was about 100 feet north.

Q. With reference to 16th street, where was it?

A. Just about where 16th street would strike that piling.

Q. What piling?

A. The westernmost corner of piling.

Q. Did you launch the boat in water west of the westernmost line of piling?

A. Yes.

Q. And between the railroad tracks and that point?

A. Yes, right at the foot of the embankment there and west of that westernmost row of piling that shows here.

Q. Given in Exhibit H?

A. Yes, and then rowed through the break in the piling into the canal or channel there between the two.

3-22-62 Q. Between the west line of piling and the line of piling next east of it as appears on Exhibit H?

A. Yes.

Q. What was the distance between those two lines of piling?

A. That was 25 feet, according to the measurement.

Q. Did you make any soundings in the waters of Lake Michigan opposite 16th street between this line of piling?

A. Yes, sir.

Q. What was the depth you found?

A. Right midway between was 6 feet.

Q. State whether or not you took a sounding directly east of the second line of piling shown on Exhibit H opposite 16th street?

A. Do you mean out in the lake inside?

Q. In the water next to the second line of piling?

A. Yes, just outside of it.

Q. How deep did you find the water at that point?

A. Just at the end of this outer line of piling and east of it toward the lake was 7 feet.

Q. Did you take any soundings still further east in the waters of Lake Michigan opposite 16th street?

A. Yes, on about 25 feet only outside of that. It was 8 feet.

Q. 25 feet east of the second line of piling?

A. Yes.

Evidence before
Master.

Q. How deep did you find the water there?

A. 8 feet. These soundings were taken in a line from the north end of the second line of piling as said line of piling was at the time the soundings were made.

Q. Was there, at that time, an old submerged breakwater running east and west opposite 16th street in Lake Michigan as you could see? Did you see any such breakwater?

A. I think there were some piles there.

Q. Now, about how far north of that line of breakwater or piling did this breakwater on the north line of which you have testified you took these soundings, extend, approximately?

A. I don't know.

Q. Was it 50 feet?

A. I should think it was 50 feet, but I don't know; it may have been farther than that, I don't know.

Q. As compared with the width of the channel; about twice the width of the channel?

A. It was a greater distance than the width of the channel. It may have been more than 50 feet, I don't know.

Q. You think it was more than 75 feet?

A. I shouldn't think it was.

Q. Between 50 and 75 feet, you think?

A. That would be my best recollection of it.

Q. Calling your attention to this Exhibit I, Mr. Lord, and which was made by the witness, Wells, and the photograph Exhibit J, made by the witness Wells in 1888, I will ask you whether or not that old line of breakwater nearest the tracks, shown on those photographs, was there when you went down there in 1887?

A. There was a line of old piles there.

Q. Was there any water intervening between that line of breakwater and the shore at the time you were down there in 1887?

A. Yes.

Q. And you observe on this photograph a line of breakwater a considerable distance outside of this line of breakwater just spoken of, out in the waters of Lake Michigan, and at the north end of photograph Exhibit J some spiles near the shore and west of this outer line of breakwater; now, will ask you whether or not there was an outer line of breakwater at that place when you went there?

A. Yes, sir; there was, in process of construction.

Q. How did it differ from the breakwater that is shown on those photographs, if any?

A. Well, according to its appearance on these photographs it is longer than it then was, and it is in a greater state of completion.

Q. In 1887 then, the breakwater didn't extend as far to the south as appears on those photographs, and was not so completely constructed?

A. No, sir; I should say not.

Q. They were driving spiles there at the time you went down there in 1887, were they not?

A. Yes, sir; I think they were.

Q. When you state it was not so far completed, what do you refer to?

A. I refer to the breakwater about which you are 3-22-63 asking me.

Q. Was it cribbed up—banked up?

A. No, it wasn't at the—it may have been somewhat at the north end; I think comparatively little of it was planked up.

Q. Then it consisted, for the most part, of spiles driven into the water?

A. Yes, sir.

Q. Didn't extend as far south as appears on these photographs?

A. No, sir.

Q. When you went there in 1887, was there a pile or spiles standing in the water of Lake Michigan between this old breakwater that appears here on Exhibit J and the breakwater that appears on Exhibit J a considerable distance out in the waters of Lake Michigan?

A. I think there was one out there somewhere near the middle of the basin.

Q. Where did that pile stand with reference to the old line of spiles at 16th street and the north shore line of that basin thus credited?

A. Well, it was approximately half way between them.

Q. About equi-distant between the two points?

A. Approximately so.

Q. With reference to the south line of lot 21, where did that pile stand; that line running east and west?

A. About opposite the building on the shore that was, I understood, the south line of lot 21.

Evidence before
Master.

Q. Did you understand it was in the line of the south line of lot 21 produced east?

A. Yes.

Q. Did you take any soundings near this outside breakwater?

A. Yes, sir.

Q. That appears on Exhibit J, at that time?

A. Yes, sir; I did.

Q. And where was that sounding taken?

A. I took one right at the end of the breakwater as it then stood.

Q. That is south of the south line of lot 21?

A. Yes.

Q. And what was the depth of the water at that point?

A. That was 10 feet there.

Q. Did you take any soundings inside of that line of breakwater that was then being constructed?

A. Yes.

Q. Was that north of the point of the last sounding?

A. That was north of the point of the last sounding, but still south of the center of the basin.

Q. South of the south line of lot 21?

A. Yes.

Q. And about how far west of this breakwater was that sounding taken?

A. That was about 50 feet, I think.

Q. What was the depth of the water at that point as ascertained from that sounding?

A. That was 10 feet. That is, just north of the south end of the outer breakwater and west of it, inside.

Q. Did you take any sounding where the inside line of breakwater next to the railroad track, the same appearing on Exhibit J, at that time cut the water of Lake Michigan to the north?

A. Do you mean the northwest corner of the basin, as it then was?

Q. Yes, as it then stood.

A. Yes, sir.

Q. How close to the shore were you?

A. I think about 10 feet from the shore.

Q. What was the depth of the water there?

A. It was 5 feet there.

Q. Did you take a sounding east of that point and at the line of the outside breakwater then in the process of construction?

Evidence before
Master.

A. Yes; that was at the northeast corner.

Q. Northeast corner of that basin?

A. Yes, sir.

Q. What was the depth there?

A. That was 7 feet there.

Q. How near the shore, the north shore of this basin, was that sounding taken?

A. It was then within 25 feet; I think probably nearer, 15 feet.

Q. Did you take a sounding on the north shore of that basin?

A. Yes, I took a sounding about half way between these last two points mentioned.

Q. To the sounding taken next the shore?

A. Yes.

Q. How deep was the water there?

A. It was 6 feet there.

Q. Were all these last three soundings taken about the same distance from the shore where they were taken?

A. Yes, just about.

3-22-64 Q. Do you know whether or not that information was filed.

A. Information I first referred to?

Q. Yes.

A. Yes, sir, it was.

Q. In whose behalf was it filed, whose name?

A. People of the State of Illinois.

Q. Attorney General Hunt?

A. Yes, sir.

Q. Do you know what became of that suit?

A. Yes, sir.

Q. State.

A. It was filed in the superior court of Cook county, and a plea filed to it by the railroad company of a prior suit pending.

Q. What prior suit pending?

A. This original suit pending.

Q. What is known as the Lake Front suit?

A. Yes, sir, in the United States Court.

Q. Issue taken on that plea?

A. Yes, sir.

Q. That bill didn't cover any territory north of the south line of lot 21?

A. No, sir.

Evidence before
Master.

Q. And the Illinois Central Railroad put in a plea of prior suit pending as to the territory covered by that bill south of the south line of lot 21 and north of 16th street?

A. Yes, sir.

Q. And issue was taken on that plea?

(No answer.)

Q. And thereafter a decree entered by Judge Harlem in this case on the 24th of September, 1888?

A. Yes.

Q. Adjudicating upon this territory south of the south line of lot 21?

Mr. Jewett: Objected to, the decree speaks for itself.

Q. There was a decree entered on the 24th of September, 1888?

A. I understand so.

Mr. Jewett: Objected to.

Q. And thereafter the information was dismissed, was it not?

A. Yes, sir, it was; don't know, one year or two after that; a year after that.

Q. That bill was filed on the 19th of June, 1887, was it not? July?

A. Filed in the summer of 1887.

Q. 19th of July, 1887?

A. 19th of July, 1887, yes, sir.

Q. Assuming that these spiles that appear in this Exhibit J were on the south line of lot 21; how far north of those spiles, did the water of Lake Michigan extend within this basin at the time you were down there in 1887?

A. Do you mean how far north of the pile that was there in the water?

Q. Yes.

A. I should think about 200 feet in round numbers; it may have been a little less.

Cross-Examination by Mr. Ayer.

Q. Do you remember the month and day on which you made these soundings?

A. Yes, sir.

Q. Pleast state.

A. 12th day of May, 1887.

Q. Did you do anything more than ascertain the depth of the water as the level of the lake then was?

A. From the surface of the water?

Q. Yes.

A. No, sir; that is, my measurements were all from the surface of the water as it then was.

Q. Do you know what the level of the lake was then with reference to city datum?

A. No, sir.

Q. Will you state what this inside breakwater, which has been spoken of, consisted of at that time? I mean the line of piling nearest the shore, or along the shore?

A. It was very uneven in its appearance, at some places more broken than others. At this particular point, where we went into the water, some of the piles were broken off way down below the surface of the water, or had entirely disappeared, so you could row a boat out between them; apparently a double row of piling there, most of which, at that particular point, had disappeared.

Q. Were there any stone between the piles?

A. Not right at that point; I think farther north and farther south there were.

Q. Did this line of piling exhibit marks of age—dilapidation?

A. Decidedly.

Q. How old was it?

A. I don't know.

3-22-65

December 4, 1894.

SAMUEL S. GREELEY, a witness called on behalf of complainants, having first duly affirmed, testified as follows:

Direct Examination by Mr. Hamline.

Q. What is your business, Mr. Greeley?

A. A surveyor.

Q. How long have you been a surveyor in Chicago?

A. Nearly 41 years.

Q. Is Mr. Carlson your partner; Mr. Carlson that testified in this Lake Front case before; Greeley, Carlson & Co.?

A. He is a stockholder in Greeley-Carlson Co. with myself; not partners, associates.

Q. I will ask you whether or not you have made a plat of the territory north of Randolph street south of the Chicago river, and the soundings in the water outside of that territory, within the last few months?

A. Yes, sir.

Evidence before
Master.

Evidence before
Master.

Q. I will ask you whether or not you made a plat of the territory on the lake front of Chicago, south of Park Row and north of 16th street?

A. Yes, sir.

Q. Soundings in the water outside of that territory, in the last few months?

A. Yes, sir.

Q. Got those plats here?

A. They are here.

(Witness produces plats.)

Q. Those maps made to a scale?

A. Yes sir.

Q. What is the scale?

A. Scale is 60 feet to an inch.

Q. And when were those maps made?

A. They were made between July and November of this year.

Q. I see a memorandum up here is dated August 2, 1894.

A. Yes, the maps were drawn and some soundings put on up to as late as November 2, I think.

Q. And do those maps show the dimensions and correct outline with reference to the scale adopted in the maps, of the property fronting on Lake Michigan and projecting into Lake Michigan, between Randolph street and the Chicago river in one case, and between Park row and 16th street in the other?

A. They do.

Q. I will ask you, in order to shorten up matters, what these marks in blue figures on these maps indicate; the small marks 17.3, for instance?

A. The figures with the decimal, in most cases in blue ink, represent the depth of the water below the city datum, or low water of 1847.

Q. You have on here a red line on this map at the north end, map of the territory between Chicago river and Randolph street, marked breakwater in 1869, as shown on the Morehouse map, the Illinois Central Railroad Exhibit Number 10; what does that line indicate?

A. That represents what it indicates on the face of the map. That was not put on by myself; it was put on by the draughtsman in the office, at the instance of myself, in my absence; I don't personally know about that red mark.

Q. You knew of his coming down here and looking at

this original Morehouse map and putting this tracing on here and copied from that map, do you not?

A. He was requested to put on certain data from the Morehouse map; I presume those are the ones.

Q. I will ask you whether or not the red line marked breakwater of 1869, appearing on the map showing the territory between Park Place and 16th street, was put on in the same way, under your ———

A. Yes.

Q. And shows the location of that line as it appeared on the Morehouse map with reference to the land and streets and lake frontage, as appears upon these maps?

A. I believe it to do so.

Q. I observe you have on this map soundings opposite figures; for instance on the shore you have in this slip here north of 16th street, you have 100, 200 and 300, and then opposite, soundings. Can you state what those represent 3-22-65 sent?

A. The figures on the margin, 100, 200, 300, indicate the distance of the line of soundings southerly from the northeast corner of that slip.

Q. And along the front here from Park Place south, you have soundings marked out east of the points 100, 200 and so on, clear down to 2100; that indicates that the soundings were taken between that point so many feet south of the south line of 13th street pier?

A. Yes, that indicates the position of each line of soundings southeast from the south line of the 13th street pier.

Q. In fact these soundings were taken under your direction, were they not?

A. Yes, by myself.

Q. And in taking them you say you have given us on the map soundings apparently distant 25 feet, 50 feet and 100 feet from the shore line opposite to which the soundings were taken?

A. Yes, sir; that is true.

Q. And these show the depth of the water at such distances from the shore line; I refer to the city datum. Will you explain so we can get it into the record so these fellows down stairs won't get mixed up, what city datum is?

A. City datum is the plane of low water of 1847 as observed by the canal commissioners and fixed at that time by reference to certain fixed points upon buildings which then stood ——. In 1855 that plane of low water of 1847 was for-

Evidence before
Master.

Evidence before
Master.

merly adopted by the city council of Chicago, as the city datum from which all levels for the public improvements of the city were to be made henceforth.

Q. Were you engineer at that time?

A. I was city surveyor in 1855, time of the passage of that ordinance.

Q. State whether or not the height of those levels have since been preserved?

A. Yes, that has been preserved by successive levelings from the points which were then made by the canal commissioners. Levels were made by myself and my successor and others all over the city, so now there is a net work of points upon permanent buildings all over the city whose height above this assumed plane of low water of 1847 is definitely ascertained and recorded.

Q. And was the water very low in 1847?

A. It was not as low as I have known it since that time. I have known the water to be, I think, half a foot or more below that plane.

Q. Do you know how much above city datum the water was in the summer of 1894, when these soundings were taken?

A. Yes, sir; the water, at the time these soundings were taken, in the north part was one foot and six-tenths, practically 19 inches, above city datum.

Q. Then the water at the time these soundings were taken on the north, stood at the date these soundings were taken, 19 inches in reality, at that time 19 inches deeper than the figure marked upon this plat?

A. Yes, sir; the actual depth was 19 inches more than the depth as indicated by the blue figures.

Q. Now, when the south map was made, and the soundings thereon taken, what was the level of the water with reference to city datum?

A. On August 1st, when the soundings from Park Row to 16th street were taken, the water stood at one foot and three-tenths above city datum.

Q. Then, in reality, the depth of the water at that time was one foot and three inches greater than the figures you have placed upon this map?

A. One foot and three-tenths greater; yes.

Q. I understand it to be the practice among all surveyors in making plats of soundings, to make the soundings with reference to some well established level.

A. Yes.

Q. So that when it is known how much the water stands above or below that level, by adding that increase or decrease to the soundings that appear upon the map, you know the actual water at a given time?

A. Yes, sir; that is the custom.

Q. That was observed in this case?

A. Yes, sir.

Q. I will ask you whether or not this plat showing soundings north of Randolph street shows the north side of the Chicago river?

3-22-67 A. Yes, sir.

Q. From slip C out beyond the pier number 1, south of the Chicago river?

A. Yes, sir.

Q. And there is a memorandum here around a figure marked "lighthouse;" what is that?

A. That is where the lighthouse stood a number of years ago. The lighthouse is gone, but a portion of the tower on which it stood remains.

Q. That lighthouse was built there about what time?

A. I don't remember the date when that was built.

Q. Been there for forty years, hasn't it?

A. Forty years ago the lighthouse stood right at Rush and River streets.

Q. It was there in 1860, wasn't it; this lighthouse?

A. It was built there between 1860 and 1869, somewhere.

Q. I will ask you whether or not this foundation, marked "lighthouse," is not the foundation on which the lighthouse stood prior to its removal within a very short time, and had stood ever since, say the year 1860?

A. Yes, it is the same foundation on which the lighthouse stood from the time it was built up to when it was removed; I don't know when; not long ago.

Q. Captain Marshall says it was removed last year up to Milwaukee. And it is the same lighthouse that was standing there as early as the year 1860, is it not?

A. About that time; yes.

Q. By putting a rule on here we are enabled to ascertain the width of these piers and the length of the piers as they actually are?

A. By applying the scale, 60 feet to the inch.

Q. And the same is true of all other measurements of both these maps?

A. Yes, sir.

Evidence before
Master.

Q. You have marked on here a line on this map at the south—a line which goes along the north line of the slip that runs north of 16th street, marked, "South line of lot 21, extended." Does that line indicate the south line of lot 21, that figures in this litigation?

A. It is the south line of lot 21 in the Assessor's division of the northwest fractional quarter of section 32, town 29, 14

Q. Can you tell us from this map how far it is from the east line of Indiana avenue on the south to the red line marked as shown on the Morehouse map?

A. It is 655 feet by scale. The figures 695 on the map do not correspond with the scale.

Mr. Hamline: I introduce these maps in evidence, and reserve the right to call on Mr. Greeley's assistant to identify these and the line marked, taken from Morehouse map.

Cross-examination by Mr. Ayer.

Q. Mr. Greeley, who made these maps?

A. They were made, I think, partly by Mr. Carlson and partly by the draughtsmen in my office.

Q. Who placed these figures upon them showing soundings?

A. The draftsman who made the map.

Q. Who made the soundings?

A. I did.

Q. All of them?

A. Yes, sir.

Q. Did you make a memorandum of them as you made them?

A. I took field notes.

Q. Did you compare the soundings that are marked upon this map with your notes?

A. Yes, sir.

Q. So you can testify they are accurate?

A. Yes, sir.

Q. And you made all the soundings yourself?

A. Yes, sir.

Q. What did you make them with?

A. Made them mainly with a lead line. I think perhaps a part of them with a pole. I think nearly all with a lead line.

Q. How long were you employed making them?

A. I should think about four days in all, and the field work?

Q. Have you any blue prints of these maps?

Evidence before
Master.

A. I don't know whether they have been taken or not, they may have.

Q. I would like to get two sets of the blue prints.

A. All right, sir.

Q. I want to call your attention to that map showing the soundings taken around piers 1, 2 and 3 between Randolph street extended and the river. This map shows a 3-22-68 pier or at least solid ground extending on the north side of the river out as far as the margin of the map, east margin of the map?

A. Yes, sir.

Q. How much farther does that land extend east?

A. I couldn't tell without reference to other maps and measurements.

Q. Some distance?

A. Yes, sir; several hundred feet.

Q. How long has that land there been in existence?

A. Well, I should think most, and perhaps all of it, since 1870 or 1871; may have been some addition later than that, I don't know.

Q. Is that what they call the North Pier?

A. That is the North Pier of the Chicago river.

Q. Was that land fully covered by water?

A. Yes, sir.

Q. Do you know who filled it in?

A. I understood it was done mainly by the Chicago Land Company under the direction of Ogden, Sheldon & Company.

Q. What is known as the South Pier?

A. It is a dock or pier running along on the south side of Chicago river. It is the south margin of the Chicago river.

Q. Is it shown on this map?

A. It is.

Q. By whom was the South Pier built?

A. The part down to the original mouth of the Chicago river was made, as I understand, by the United States Government. I suppose that the pier east of that was done by the Illinois Central Railroad, without absolute knowledge of it.

Mr. Hamline: Objected to.

Q. Do you know by whom it is maintained and who has possession of it?

Evidence before
Master.

Mr. Hamline: Don't state unless you know. I object to your understanding.

A. I can only say what my belief is.

Q. I call your attention to that portion of the South Pier which projects out to the east beyond pier No. 1; by whom was that built?

A. That I don't know.

Q. Who has possession and control of it?

Mr. Hamline: Objected to unless you know.

A. That I don't know. I will say this: The United States Life Saving Station is at the west end of that and seems to occupy a portion of that and a portion of the east end of pier No. 1.

Q. Will you state whether that prolongation of pier No. 1 is an extension of what is known as the South Pier?

A. Yes, sir.

Q. What is the length of that prolongation, approximately?

A. 225 feet. That is what it scales, 225, and that is my recollection of the length.

Re-direct examination.

Q. What is the extreme length east and west of piers number 1, 2 and 3 respectively?

A. Pier number 1 is 1,000 feet long east and west. Pier number 2 is 1,000 feet long east and west, and pier number 3 is the same.

Q. That length is taken from this red line marked on the map breakwater in 1869 as shown on the Morehouse map, Illinois Central Railroad Exhibit number 10, is it not?

A. Taken from the line prolonged of the west end of slips number 2 is 1,000 feet long east and west, and number 3 side with the red line which was afterwards put on the map by the draftman.

Q. What is the distance from the west end of these piers and the east line of slip C marked on this map?

A. 270 feet from the east end of slip C to the west end of slips 1 and 2.

Q. What was the average width of pier number one?

A. The main portion of pier number one is from 240 to 250 feet wide north and south.

Q. What is the average width of pier number two?

A. 303 feet.

Q. And pier number 3?

A. The same, 303 feet.

Q. What is the width of this strip of land south of the red line marked on this map "Breakwater in 1869, as shown on Morehouse map," and being south of the south line of slip C?

A. From that red line south to the south face of the dock on the Randolph street extension is 116 feet.

3-22-69 Q. The south line of that slip is 115 feet south of the south line of slip C?

A. Yes, sir.

Q. And is that slip directly east of Randolph street?

A. Yes, sir.

Q. Can you give us the width of slip No. 1 and slip No. 2 on this north map?

A. Slip number 1 is from 152 to 154 feet wide. Slip number 2 is 150 feet wide.

Mr. Hamline: I will have these maps marked by the Master, the north map Exhibit N and the south map Exhibit O.

Q. Calling your attention to the south map Exhibit O and to the pier represented thereon on its north end, I will first ask you whether or not Michigan avenue as appears on that map runs north and south?

A. Yes, sir, north and south.

Q. And this pier runs east and west?

A. Yes.

Q. Now calling your attention to that pier at the north end of this map, I will ask you how long that pier is at its south line?

A. 905 feet long.

Q. And that is from the east end to where the pier joins with the shore line at the west?

A. Yes, it is from the east end of the pier west to the northeast face of the pier running thence southeasterly.

Q. It is from the east line of the pier to the shore line as appears on this map?

A. Yes, sir.

Q. How far is it from the west end of the south line of the pier cuts the shore line west, to the east line of Michigan avenue?

A. 860 feet.

Q. In addition?

A. Yes, sir.

Q. How wide is that pier north and south?

A. 300 feet wide.

Evidence before
Master.

Q. How far is it from the west end of the south line of that pier to the west line of the right of way of the Illinois Central Railroad opposite?

A. 536 feet.

Q. You have marked on the north line of this Exhibit O, "Park Place;" what is Park Place?

A. Park Place is a street at the south end of what was known as the Lake Front Park, running along the north side of the present Illinois Central passenger station.

Q. It is in reality the south end of that old original Lake Front as platted, is it not?

A. Yes, sir.

Q. The west square of ground that appears on this Exhibit O being the northwest corner thereof is the same as original block 23?

A. That part lying between Twelfth street and Park Place and from Michigan avenue east to the Lake Shore on this map is practically the original block 23 of fractional section 15.

Q. The west line of block 23 stood some little distance east of the west line of the block south of Twelfth street, did it not?

A. Yes.

Q. How far east of the east line of Michigan avenue south of Twelfth street is the west line of this square block 23 on the northwest corner of this map?

A. It is 30 feet.

Q. How far is it from the west line of that block to the shore of Lake Michigan, directly east thereof?

A. On the south side of Park Place it is 500 feet.

Q. Block 23 as originally laid out was how long east and west?

A. It was 500 feet.

Q. How far west of the west line of this square that stands at the northwest corner of your map are the tracks of the Illinois Central Railroad, if you know?

A. I haven't located them.

Q. Can you give us according to this map the length of this outside dock which forms the east side of the slip in Exhibit O which appears at the south end of that exhibit?

A. From the north end of the slip southeast along the east side of it to the south end of the dock lying east of the slip is 628 feet.

Q. How wide is that dock at the south?

A. 105 feet.

Q. And at the north, being the south line of lot 21?

A. 166 feet.

Q. What is the length of the inside or west dock south of the south line of lot 21?

A. 652 feet.

Q. And how wide is the dock at the south end?

A. 102 feet.

Q. And how wide is that slip intervening at right angles?

A. 182 feet.

3-22-70 Q. On this map of yours at the extreme south end there are two lines projecting south of 16th street; what do they indicate?

A. The north end of Prairie avenue at 16th street.

Q. Does the east line indicate the east end of Prairie avenue?

A. Yes, sir.

Q. And the west line the west side?

A. Yes, sir.

Q. Now, will you please tell me how far it is from the east line of Prairie as appears on this plat to the southwest corner of the west dock you have just testified to being the intersection of the south line of that dock with the shore line as appears upon your plat?

A. 280 feet.

Re-cross examination.

Q. Can you tell us what indicates the west line of the Illinois Central right-of-way?

A. It is the diagonal line running from southeast to northwest and passing about 60 feet east of the east line of Prairie avenue at the center of Sixteenth passing thence northwest.

Q. It is the black line of this map?

A. Black diagonal line on this map.

Q. How far does it run northwest?

A. It runs up to what is shown as the east line of Indiana avenue near the south line of Thirteenth, thence it runs north parallel with Michigan avenue.

Q. Tell me how far it is at, say, on the north line of Sixteenth street extended from the west line of the Illinois Central right-of-way to the west line of the slip?

A. It is about 310 feet.

Q. Now I will ask you in regard to the pier at the foot of

Evidence before
Master.

Thirteenth street shown on the map referred to as Exhibit O and the three piers lying between Randolph street extended and the river shown on the map marked Exhibit N. Will you state whether they extend out to or beyond the dock line established by the United States Government as the exterior dock line in the outer harbor?

A. I have never located that line and don't know it.

Re-direct examination.

Q. I will ask you to look at this map heretofore introduced in evidence on the hearing of the main case marked "Defendant Illinois Central Railroad Company's Exhibit, Map No. 10," calling your attention to the red line marked thereon, "Break-Water as it was in 1869," both at the north end of the map north of Randolph street and the south end of the map south of Park Row,—Twelfth street,—and I will ask you whether or not that line is substantially placed upon Exhibits N and O with reference to the west line of the Illinois Central Railroad Company's right-of-way as it appears upon that map number 10?

A. There is a general conformity and I believe it to be about the same.

Q. It was intended to be drawn in exact conformity to the red line shown on the Morehouse map?

A. Yes, sir, it was.

Adjourned to Friday, December 21, at 10 o'clock a. m.

January 3, 1895.

Met pursuant to adjournment.

Present as before.

S. LUNDGREN, A witness called on behalf of complainant, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. S. Lundgren; occupation, draughtsman.

Q. Are you in the employ of the Greeley-Carlson Company?

A. Yes, sir.

3-22-71 Q. I call your attention to this map introduced in evidence as Exhibit O, South Map, and I will ask

you whether or not you put the red line on here that has been crossed out? Evidence before Master.

A. I did.

Q. And have you put the red line on here that is next outside of that line, marked "breakwater, 1869," as shown on the Morehouse map, Illinois Central Railroad Company's Exhibit number 10?

A. Yes, sir.

Q. All up and down that map?

A. Yes, sir.

Q. What did you take this last red line from?

A. From a map furnished by you.

Q. Is this it, map Exhibit number 10, in the original Lake Front case?

A. Yes, sir.

Q. Known as the Morehouse map?

A. Known as the Morehouse map.

Q. I will ask you whether you have placed upon this Exhibit O South, by this red line, the red line that appears upon the Morehouse map showing breakwater in 1869, but made with reference to the scale used in this Exhibit O South, so as to show the distance that the red line sustains to the west line of the Illinois Central right-of-way?

A. Yes, sir.

Q. Calling your attention to where the red line comes out north of this map, how far is that red line where it cuts the lake shore east of the east line of Michigan avenue projected north of 12th street?

A. It is 525 feet.

Q. Calling your attention to the center of 13th street where the west line of the right-of-way of the Illinois Central strikes what is known as the north end of Indiana avenue, how far is it from the west line of the right-of-way of the Illinois Central Railroad Company to that point, to this Morehouse line?

A. 215 feet.

Q. Calling your attention to the turn in this red line where it turns off in an easterly direction just south of 13th street, and to the point where it diverges directly east at a considerable distance south of 14th street, what is the width and distance from the west line of the right-of-way of the Illinois Central to that red line?

A. 180 feet.

Q. Where this red line turns to the east abruptly south

Evidence before
Master.

of 14th street, how far does it proceed before it turns to the south?

A. 165 feet.

Q. And thence how far does it proceed in a straight line southeasterly?

A. 365 feet.

Q. And thence how far does it proceed in a straight line easterly?

A. 155 feet and 175 feet.

Q. After going east 155 feet, what is the red line which strikes the last mentioned line at right angles?

A. 440 feet.

Q. That is the length of it?

A. Yes, sir.

Q. Is that a red line that appeared upon the Morehouse map?

A. Yes, sir, it is.

Q. And it bears the same distance from the west line of the right-of-way of the Illinois Central Railroad as it is on the Morehouse map?

A. It does.

Q. Allowance for the scale of the maps being made?

A. Yes, sir.

Q. And this last line you have spoken of runs 440 feet north from the line that runs east and west that you have testified about?

A. Yes, sir.

Q. Calling your attention to where the line 365 feet long which runs north and south, about which you testified, turns to the west, what is the difference between the point at which it turns to go west and the extreme end of the line produced west?

A. 365 feet.

Q. From this last point, the extreme west end of this line, 365 feet long, how far is it to the east line of Indiana avenue, directly west thereof?

A. 455 feet.

Q. And how far is it to the west line of the right-of-way of the Illinois Central railroad at right angles?

A. 180 feet.

Q. Calling your attention to this line where it turns at the extreme western end to go southeasterly, and marked breakwater in 1869, as shown on the Morehouse map, Illinois

Central railroad, how far is this point of turning to the north line of 16th street produced east?

Evidence
Master.

A. 835 feet.

Q. How far is it from this red line to the west line of the right-of-way of the Illinois Central railroad company at right angles?

A. 180 feet.

3-22-72 Q. Calling your attention to the north line of 16th street, produced east so as to bisect this red line, how far is it along this line at 16th street from its intersection with the red line to the east line of Indiana avenue?

A. 605 feet.

Q. Calling your attention to the east line of the right-of-way of the Illinois Central railroad on this map below 16th street, and where the shore line turns and is produced east to the open space marked "slip." at that turn; how far is it at right angles to the west line of the right-of-way of the Illinois Central railroad?

A. 203 feet.

Q. This diagonal line in black crossing the map here from southeast to northwest, produced from south of 16th street up to the center line of 13th street, is the west line of the right-of-way of the Illinois Central railroad, is it not?

A. Yes, sir.

Q. Can you tell me how far it is from the south line of 16th street, produced east to the west line of the Illinois Central right-of-way, north along the west line of the right-of-way to the south line of lot 21?

A. By scaling the map, 500 feet.

Mr. Ayer: You haven't measured it on the ground, have you?

A. I have not.

Mr. Ayer: You only estimate the distance by scaling the map?

A. Yes, sir.

Q. How did you happen to put this red line on here that is crossed out at various places?

A. From a small lithographed map supposed to be a copy of the Morehouse map.

Q. That lithographed map that is in the Supreme Court opinion?

A. Yes, sir.

Q. And you sought to put on this map the red line as shown on the Morehouse map?

A. Yes, sir.

Evidence before
Master.

Q. And you found that lithograph was erroneous, did you not?

A. I found that it was not quite true to the scale.

Q. And so you afterwards came down here to the Master's office and got the original Morehouse map, and from that put in this red line, did you?

A. Yes, sir.

Cross examination waived.

January 3, 1895.

WILLIAM T. CASGRAIN, A witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name in full, residence and occupation?

A. William T. Casgrain; my occupation is civil engineer and contractor; I live in Chicago.

Q. What was your business in the year 1869?

A. I was assistant engineer on the river and harbor works under Col. Houston, stationed at Milwaukee.

Q. State how long you had been in the army of the United States prior to 1869?

A. I was from 1857 to 1872, 15 years.

Q. During that time what was your particular work in the army?

A. I was engaged on the surveys of the river and harbors under Col. Houston.

Q. Where were you most of that time?

A. At Milwaukee; headquarters.

Q. On Lake Michigan here?

A. Yes, sir.

Q. State whether or not you had occasion to become familiar with the various harbors around Lake Michigan in connection with your business?

A. I had made the surveys of several Lake Michigan harbors; made surveys of Milwaukee, Chicago, Michigan City, Kalamazoo, or the mouth of the Kalamazoo river, called Saugatuk, South Haven, Grand Haven, Muskegon, White Lake, Manistee, Frankfort, Port Washington, Sheboygan, Manitowoc, Sturgeon Bay and in charge of the construction of the Sturgeon Bay Canal.

Q. Were you ever associated with the improvements in connection with the Chicago harbor?

A. I was.

Q. What years?

A. From 1866 until 1872.

Q. The work at that time was superintended from Milwaukee, was it?

A. Yes, sir.

Q. Major Liljencrantz was up at Milwaukee at that time was he not?

A. Yes, sir; he came here in 1870, I think.

Q. Now, I will ask you whether or not you had any occasion, while in the government employ, to make soundings in the Chicago harbor?

A. I did.

Q. And about what time did you make those soundings?

A. I made them at various times. I made a complete survey in 1869 for the purpose of locating the outside break-water, and then in 1871 I made another survey with soundings for the purpose of establishing dock lines—harbor lines.

Q. For the United States government?

A. For the United States government.

Q. Connected with the Chicago harbor improvements?

A. Yes, sir.

Q. And about what months was it in 1869 when you made your soundings?

A. They were made in the month of July and August. Latter end of July and about two-thirds of the month of August.

Q. Do you know whether or not those soundings were afterwards placed upon the map?

A. Yes, sir; I placed them myself.

Q. I will ask you whether or not this is the map? Calling your attention to Exhibit A, which purports to have been made from a survey, under direction of Col. Wheeler?

A. Yes, sir; I know this map very well.

Q. I will ask you whether or not that map, Exhibit A, shows the soundings made by you at that time?

A. It does.

Q. On here are various lines, waving lines sprawling all over the face of the water; what are those lines?

A. These lines represent the direction of the soundings that were taken; for instance, this one running east, it deviates somewhat and they get further to the east for the reason

Evidence before
Master.

that the range couldn't be followed accurately, and these points were determined by intersection with the instruments on the shore. An observer here and another observer at that point, forming an intersection and showing where it deviates.

Q. That is the lines that run east and west?

A. Yes; and the same with these lines running north and south.

Q. And do they show depths of the water at the points where these figures are placed?

A. They do.

Q. This is from the surface of the water down to the submerged land?

A. From the surface of the water to the bottom of the lake.

Q. I call your attention to the wavy lines here: What are they (indicating)?

A. These lines delineate the 12-foot curve; that is, everything inside of that is less than 12 feet, everything outside is more than 12 feet. This shows the 9-foot curve (indicating). Everything inside of that is less than 9 feet, here, and there you see it is 11 feet 8, a hole probably dredged; 9 feet 3, the same. In here is a pocket of a greater depth, and the same in there; pocket of a greater depth than 9 feet. The curve shows that outside of that is greater than 9 feet and inside of this is less than 9 feet.

Q. With reference to what plane, were these soundings taken?

A. With reference to the plane of the United States survey established in 1859. There was a gauge placed here in the lighthouse crib, and this gauge, plane of reference, was the high water of 1838, and the gauge read downwards, and it shows in the note that it reads 2.95 feet, showing that the stage of water at that time was 2 feet and 95 hundredths of a foot below the high water of 1838, or a foot and 3-22-74 55 hundredths above the low water of 1847; and the way we get at that is by knowing the difference between the high water of 1838 and the low water of 1847, which is 4 1-2 feet, determined by the government.

Q. Still that was the plane, and you can either figure how much that was lower than the high water of 1838, or how much that was higher than the low water of 1847, and what Chicago city datum, yet these figures themselves show the actual depth at that time, do they not?

A. Yes, sir; at that time.

Q. In July and August, 1860?

A. Yes. The way we ascertain that, we take observations for the days, or we take soundings, for instance: you can only take soundings in calm weather; if the lake is rough you can't do any accurate work; and the reading of the gauge by the light keeper every two hours. Now, suppose during that time, from July 20 until August 20, during that month, there has been a fluctuation of one or two feet, for instance, before platting these soundings, you take the highest and lowest stage of water and you would take the mean of the water; then on that day that the sounding is taken you have got your gauge and you know how much it is above the mean, whether it is a plus or a minus quantity to which you add or deduct from in order to bring the soundings to a uniform level; one uniform reference. That is the way it is done.

Q. Then, as a matter of fact, these measurements show the average depth of the water in a quiet condition during the period intervening between the 20th of July and the 20th of August, 1860?

A. Yes, sir, and you can verify this by the United States lake survey, which shows that.

Q. Now, Mr. Casgrain, I will call your attention to this map, that has been introduced in evidence as Exhibit D, being the Houston map of 1871. I will ask you whether you are familiar with that map?

A. Yes, sir; I made the original of this map.

Q. I will ask you whether or not you took the soundings of Lake Michigan about the 12th of April, 1871?

A. I did, sir.

Q. Where were you stationed at that time?

A. In Chicago.

Q. And you were still in the United States Army, were you?

A. Yes, sir.

Q. I will ask you whether or not you had the soundings taken by you placed upon this map?

A. Yes, sir; I placed them myself, and the draughtsman inked them; I placed them in pencil.

Q. I will ask you whether or not the soundings that are marked thereon, these figures which I take to be soundings, 15.5, 14.5, in parallel columns running out from the shore—those marked soundings, did they not?

A. Yes, sir.

Q. I will ask you whether or not the figures thereon indicating soundings show the depth of the water in Lake

Evidence
Master.

Evidence before
Master.

Michigan beneath those figures and at the points the figures are placed, about the 12th of April, 1871?

A. They do, sir, at the date the soundings were taken.

Q. What was the plane of reference that was employed in making this map?

A. Plane of reference was the same as the United States lake survey gave.

Q. That was high water of 1838?

A. Referred to the high water of 1838, and these soundings show the mean stage of the lake level at that time.

Q. The actual depth?

A. The actual depth below the high water of 1838.

Mr. Ayer: And that was how much above Chicago datum?

A. At that time it would be, I think, something like two feet three above Chicago datum.

Q. What plane did you say this was?

A. These surroundings refer to the same plane of 1838.

Q. What was the mean lake level at that time?

A. Two feet and one-tenth above 1847, or 2 feet and four-tenths below 1838.

Q. But these figures on here, for instance, the outside figure in front of beacon light, 25 feet; that shows the actual depth of the water at that time?

A. Yes, sir; on that day.

3-22-75 Mr. Jewett: Don't the whole map show actual depth?

A. The soundings were made in one day, and the whole of the soundings referred, of course, to the same depth of water, the same level on that day, which was 2 feet and one-tenth above the low water of 1847, or 2 feet and four-tenths below the high water of 1838.

Q. In other words, the average high water of 1838 was a couple of feet or so higher than the water of Lake Michigan on the 12th of April, 1871?

A. Two feet and three-tenths.

Q. On the contrary, the low water of 1847 was a foot or so below the level of the water of Lake Michigan on the 12th of April, 1871?

A. I don't understand that.

Q. The low water of 1847 was how much lower than the level of Lake Michigan on the 12th of April, 1871?

A. Below what reference? Below the reference of 1838?

Q. No, below April 12, 1871.

A. It was not below 1847.

Evidence before
Master.

Q. Was it above it?

A. The water of April 12 was above 1847 2 feet and one-tenth.

Q. That is what I ask you, how much below the low water of 1847?

A. Two feet and one-tenth. I understood you to say below.

Q. Why do you refer to high water of 1838?

A. Because it is the established reference of the United States lake survey.

Q. Is that the highest water that was ever known?

A. Highest water of record; and the reason for that is this: In making these surveys of the different harbors that I have mentioned to you, we had to have a certain plane of reference to which all these soundings—or all these maps were made so that in the future additional maps made and any surveys taken, there would be one plane of reference, and the United States lake survey had established these gauges at various points on the lake, and we were instructed to refer all our soundings and all our surveys to that standard of reference of 1838.

Q. For comparison?

A. For comparison. Now, for instance take the soundings at Manistee; there is no gauge there; survey was made say in the month of September; after the survey was made from the time you started in the month of September, until you completed it, you just went to the records of the United States lake survey and obtained the stage of water at that time, and from that reduced all your soundings to that plane.

Q. Now, Mr. Casgrain, I notice on this map, Exhibit D, a lot of lines projected out at right angles to the enclosed plane marked, "in process of being filled with earth." These lines project out here bear on the face, "proposed docks of the Illinois Central Railroad Company." Were those docks actually in existence or were they simply imaginary lines?

A. They were projected lines obtained from the office of the Illinois Central Railroad Company at the time. I was instructed by Col. Houston to ascertain the amount of work contemplated by the company, and Mr. Kellogg as one of the assistant engineers went with me, located all this work and measured the various piers they were building, and this work in here, and then I obtained this tracing from which I platted, for the purpose of work on this map.

Q. Calling your attention to this map, Exhibit A, I ob-

Evidence before
Master.

serve you have on here marked, "in progress of being filled with earth," a rectangular strip south of the Chicago river. Do you know whether or not that was being filled in at the time this map was made?

A. They were, where you see this break down here the dredge was working at that, casting off, taking this material from the slip and filling in here.

Q. Throwing it to the east?

A. Yes, sir.

Q. Had they built pile work around that?

A. Yes, sir.

Q. And they were filling it in with the matter excavated from the west?

A. That is what I saw there at the time. You can see they hadn't completed quite the end; it wasn't filled there.

Q. At that time, in 1869, how far out beyond this rectangular strip marked, "in process of being filled with earth," did the government pier run, the south pier?

A. 608 feet.

3-22-76 Q. And that was built in 1869, was it?

A. That was built prior to 1869; some time before; I couldn't tell you.

Q. Very shortly before that?

A. Yes.

Q. Do you recollect when this crib work that surrounds this rectangular piece marked, "in process of being filled with earth," was constructed, about what year?

A. It was a good many years ago, but I should think, my recollection now is, about 1867 or 1868. It was begun, I think, about then. I am not positive about that.

Q. Within a year or two prior to 1869?

A. I think so, yes sir, because that was all new work when I made that survey.

Q. Now, did you ever have any occasion to do any work for Mr. Morehouse, who was representing the Illinois Central?

A. I worked with him in connection with this map; he furnished me this proposed improvement.

Q. Calling your attention to this Morehouse map marked "Defendant Illinois Central Railroad Company's Exhibit Map number 10," the red line on here, breakwater as it was in 1869, I will ask you if you know whether or not that was the line of the breakwater at that early part of 1869?

A. Yes, sir; that was the breakwater in 1869, similar to my survey.

Q. Calling your attention to the red line on the Morehouse map down just north of lot 21, I will ask you if you know whether or not there was any land outside of that red line in 1869, or whether it was all water?

A. That was all water outside of that line.

Q. Outside of the red line?

A. Outside of the red line was all water, you can see. That is where the round house and the sheds are.

Q. The old round house?

A. Yes; there was a new one built outside of that.

Q. In 1869 that new one wasn't there?

A. No, sir. No, this is correct.

Q. And calling attention to your map here, the Wheeler map of August, 1869, to these two parallel lines immediately east of the designation, "Illinois Central Railroad Company's machine shop," were those crib breakwaters standing in the water?

A. They were not cribs, sir, they were piles.

Q. Standing in the water?

A. Yes, sir, and filled with stone.

Q. And no land between them?

A. Oh, no, sir, no land.

Mr. Ayer: Between what?

A. Between these two piers; there was no land between them.

Q. This curved line that is next east of the outside breakwater just beyond Illinois Central Railroad Company's machine shop, is not a curve of land, but it is a curve of depth?

A. That shows that inside of that curve there is more than 9 feet of water; it is 11, 10, 8, 12.

Q. Inside is less than 12 feet and outside is more than 12 feet?

A. Yes, sir.

Q. Then calling your attention to a curved line that runs north from just outside of the breakwater at 13th street on this Wheeler map, this curved line is a 12-foot curve?

A. Yes, sir.

Q. Not the shore line?

A. Not the shore line. That shows that outside of that line it is 12 feet or more and inside is 12 feet or less.

Q. Now, I will call your attention to this other map made in 1857 by Col. Graham, Exhibit C, and ask you whether or not the soundings on that map refer to a plane, just like the soundings on these other maps?

A. Yes, sir, but the plane of reference for Col. Graham's

Evidence before
Master.

survey prior to 1859 at the time the United States lake survey established these gauges, was the low water of 1847.

Q. Chicago city datum?

A. Chicago city datum. Col. Graham had all these surveys referred to that plane.

Q. But the designations on the map itself designate the actual depth of the water at the time the soundings were taken.

A. Yes, sir; that is the mean lake level at that time, of course it fluctuates, you know.

Q. Anything on that map to show the gauge?

A. The soundings are in feet and tenths of a foot; they reduced to a plane of 2 feet 3 on the tide gauge, this tide gauge was the low water of 1847.

3-22-77 Q. Water at that time was 2 feet and 3 inches above low water of 1847?

A. Two feet and 3-10 above low water of 1847. The reason I recollect that is because I served under Col. Graham and made some of these surveys.

Q. Do you recollect Col. Cram's survey?

A. In 1865, I believe.

Q. Yes.

A. Yes, sir.

Q. Do these soundings upon this survey, being Exhibit B,—do you know what plane those soundings are referred to?

A. They would be referred to low water of 1838, because that was after 1859.

Q. Whatever soundings are put on there represent the actual mean depth at that time?

A. Yes, sir; on those days that the soundings were taken.

Q. This is a survey of July, August and September, 1865?

A. That would be 2 feet above low water of 1847.

Q. Calling your attention to this map which I propose to introduce in evidence as Exhibit P, and being designated as the main part of the harbor of Chicago, Illinois, 1865, and made under the general superintendence of Col. W. F. Reynolds, United States Corps of Engineers, Superintendent of Lake Survey, July, August and September, 1865, I will ask you whether or not Mr. Reynolds was at that time General Superintendent of United States Corps of Engineers of the Lake Survey?

A. He was superintendent of the lake survey.

Q. At that time?

A. Yes, sir.

Q. Calling your attention to this map, I will ask you if you know what plane of reference the soundings on this map are referred to?

A. The plane for the soundings is 2 feet above the low water of 1847, as stated on the note in here.

Q. But the soundings themselves would be the actual mean depth?

A. The actual mean depth on those days they were taken, which was 2 feet above low water of 1847.

Q. Now, Mr. Casgrain, in your business, you became familiar with the depths of water in the harbors around Lake Michigan, did you not?

A. Yes, sir.

Q. In 1869, 1870 and 1871?

A. Yes, sir, from 1866 to 1872, six years.

Q. What sort of commerce was done on the east shore of Lake Michigan from 1869 to 1870 and 1871?

A. Well, mostly lumber traffic; lumber commerce between the eastern ports and the western ports.

Q. Shipping to all parts of the northwest?

A. Shipped mostly to Chicago, Milwaukee and Michigan City.

Q. Do you recollect the depths of the water in those harbors?

A. Yes, sir.

Q. Can you give them to me?

A. At Manistee the depth of water in 1867 and 1868 was about 8 feet; at Frankfort, Michigan, from 7 to 8 feet; at Ludington, about 7 to 8 feet; at White Lake, only 6 feet of water; Muskegon, about 10 feet; Grand Haven, 10 to 12 feet, that depended on the bar; the wind there affected that considerably; Holland, 6 feet of water; Pentwater, 5 feet; Kalamazoo, about 6 feet there; South Haven, about 8 feet of water, that was from 1867 until about 1870; subsequent to that the government made appropriations for the improvement of those harbors and they have been very much deepened. This is between 1867 and 1870; that is the time I made these surveys along that shore.

Q. Most all the lumber came from Michigan, did it not?

A. Yes, all of it.

Q. All in the Chicago harbor?

A. Yes, came to Chicago and Milwaukee.

Q. Do you recollect the time when the bar used to run

Evidence before
Master.

south from the light house towards Van Buren street, in the Chicago harbor?

A. There was several years a bar there, from 1866 to 1870, I recollect, prior to that I don't know. The bar was in a southeasterly direction from the north pier, sand bar.

Mr. Ayer: Out in the lake?

A. About the position of the present breakwater.

3-22-78 Q. Government breakwater was built on that bar, wasn't it?

A. Yes, sir, north end of it is on the bar.

Q. Are you familiar with boats engaged in navigation in Lake Michigan?

A. Yes, sir.

Q. What, in your opinion, is navigable water in Lake Michigan?

Mr. Jewett: Objected to.

A. I consider navigable water wherever any craft carrying freight can land in travel, or navigate.

Q. Are you familiar with the canal boats on the Illinois and Michigan Canal?

A. Yes, sir.

Q. Do you recollect whether or not they were employed in the construction of any of this filling in or building of breakwater in front of the city?

A. I have seen them unload stone on the breakwater parallel with the Illinois Central.

Q. That is the Illinois Central breakwater?

A. Lake front, they were filling up that pile work.

Q. That is, between Park Row and Randolph street?

A. Yes, sir.

Q. Boats tied up to the dock there?

A. Yes, tied right there.

Q. Ever see any other vessels tied up to these breakwaters?

A. Yes, sir, I saw some of them tied up there in 1866, 1867 and 1868, along here, making these surveys at various places.

Q. Those sailing boats, vessels?

A. Sailing vessels engaged in commerce.

Q. Calling your attention to defendant Illinois Central Railroad Company's Exhibit Map number 6, heretofore introduced in evidence in the main case, and which I refer to in evidence in this branch of the case, known as the Whitfield view of Chicago, I will ask you whether or not that shows

substantially the location of the north pier and the Illinois Central elevators A and B, the old Buckingham elevators, with reference to the Illinois Central depot and the tracks of the Illinois Central Railroad, and the filled in ground at that time prior to 1868, say?

A. That looks like a fair representation of it.

Q. You observe on this map here at the north end of it, a vessel between a short pier and some land, apparently; state whether or not at similar points you saw vessels along that front, prior to 1868?

A. My recollection is, I have.

Q. I observe, on this map photograph, there are vessels in below the north pier. This is the north pier projected out beyond the elevator?

A. Yes, with the light house on it.

Q. And the south pier, prior to that time, 1868, stopped with the elevator, didn't it; the outside elevator?

A. On the outside of it, yes, sir.

Q. I will ask you whether or not this photograph with these vessels marked in south of the north pier represents the condition of navigation that existed prior to 1868 and 1869, along in front of those elevators?

A. I think it does.

Q. You used to see vessels going to and fro there all the time?

A. Oh, yes, there was navigable water there.

Q. And in 1868 and 1869 this shore—this photograph, it appears, was taken in 1860. I will ask you whether or not that wasn't the condition of the north shore of Randolph street from 1860, say up to the time that the Illinois Central built the crib work, which is marked in the process of being filled in on your map of 1869?

A. I couldn't go back to 1860, because I wasn't down here till 1866.

Q. Well, from 1866?

A. Well, I should judge so.

Q. 1866 until the time they started to build that crib work?

A. Yes, sir; but I don't know anything prior to that time.

Q. You see that south vessel there on this photograph; three masted brig?

A. Yes.

Q. I will ask you whether or not the Illinois Central docks do not cover the space of water where that vessel is shown on that photograph, at the point there?

Evidence before
Master.

A. The map would show that the piers go beyond there.

3-22-79 Q. Piers go out as far as the light house now?

A. Yes; the east line of the dock is in line with the north and south line from the light house.

Q. I observe a vessel in here on this photograph just west of this elevator B; the east elevator is elevator B, marked Sturges & Buckingham elevator at that time; was there a slip there?

A. Yes, sir.

Q. That vessel supposed to be lying in the slip?

A. Yes.

Q. There is a slip between the two elevators, A and B?

A. There is.

Mr. Ayer: That is there now?

A. Yes, the same elevators are there, and the same slip.

Cross-examination by Mr. Ayer.

Q. I wish to call your attention again to the map marked Exhibit D, styled Chicago harbor from a survey made between the 20th of July and the 20th of August, 1860, soundings taken April 12, 1871, under the direction of Maj. D. C. Houston. I understand you to state that you made those soundings yourself?

A. I did, sir.

Q. Will you state whether the water in the lake was liable to great fluctuations?

A. On that day?

Q. From time to time.

A. It was.

Q. It is now?

A. It is now; yes, sir.

Q. These measurements that are given here upon the map indicate the depth of the water on the day they were taken?

A. Yes, sir.

Q. Now, will you please state how much in either direction the surface of the lake was liable to fluctuate?

A. Generally?

Q. Generally, from time to time; in the course of a year,—during the season of navigation.

A. I have known,—it did in one instance at Sturgeon Bay, for instance, couldn't tell you exactly at Chicago, but at

Sturgeon Bay I have noticed a fluctuation within half an hour of two and one-half feet, and in Chicago harbor, of a foot or more, but I have noticed a fluctuation of two and a half feet in half an hour.

Q. Then the depths here that are given on this map, are liable to, at times, to be less than is here presented?

A. No, sir; we take always what is the mean surface level. As I told you before, when we start our survey there is a man at the gauge who records the fluctuations. Now suppose, for instance we start at zero to-day, or any point of the gauge, zero, we will say, and the water rises to a foot and a half during that day while we are taking those soundings; of course the time is given of these observations at 7 o'clock, 9, 11, 1, or whatever time you designate your man to observe them, then you take from the zero a foot and a half, the fluctuation, that would make 75-100 of a foot the mean water level at that time. Therefore, at 7 o'clock in the morning, if the gauge reads zero, and you want to refer it to the mean water level you have to add 7-10 and then in the afternoon, if your gauge has gone up a foot and a half, then deduct 7-10 in order to bring it to the same level, the mean stage of water for that day.

Q. Was not the surface of the water liable to be higher or lower than it was on the day when these soundings were made?

A. On that day just about the same level.

Q. No, but during the season,—during the course of the season?

A. Certainly, it fluctuates constantly.

Q. It might be how much higher, the surface, than on the day these soundings were taken?

A. Sometimes a difference, as I say, of a foot and a half.

Q. How much lower might the surface be?

A. Might be a foot and a half.

Q. Now then, there were or may have been periods during the season of navigation in 1871, when the actual depth of the water in the lake, measuring from the actual surface to the bottom was less considerably than—

A. Certainly you can ascertain that very readily. Referring to a chart which presents the curve of the fluctuations of the water surface of the lake. In the month of April, 1871, the water was 2 feet and 4-10 below the high water of 1838, and it rose again in the month of August until it was 2 feet exactly below 1838, so it rose 5-10 there and it keeps

Evidence before Master. 3-22-80 on. Then it started from here and went away down in 1872 till it was four and a half feet, nearly to the water of 1847. So that is the range down here from 1871 to 1872, one year, of nearly two feet fall.

Q. What, according to your observation, have been the extreme changes in the actual water level at Chicago, over the whole course of your experience here?

A. I can't you tell that from the highest to the lowest. This is from 1859 to 1887. The highest range was from 1873 to 1876. The highest is one foot below high water of 1838 in 1859, and the lowest is 4 feet and 8-10 in February, 1873, below the high water of 1838, that makes 3 feet and 8-10.

Mr. Jewett: Is that the difference between the two levels?

A. The difference between the highest and the lowest.

Q. On what are these fluctuations dependent?

A. Various causes; lack of rain, hot summer, evaporation and lack of snow in the winter time to supply the annual rain fall. Various causes.

Q. Wind has something to do with it?

A. A certain eastern wind is very apt to bank up Lake Michigan water here and raise it a foot and a half—from a northeast gale.

Q. What effect does a south wind have, or a southwest wind?

A. Southwest wind would have the effect of depressing, lower the water at this end of the lake.

Q. Now, I will ask you if you know for what purpose this map, to which your attention has just been called, was made?

A. In 1871?

Q. Yes.

A. The purpose of that was to establish harbor lines on the recommendation of engineers. It was to be submitted to a corps of engineers for the purpose of establishing harbor lines and prevent the erection of docks.

Q. Do you mean by that that the purpose was to establish an exterior dock line beyond which wharves should not be constructed?

Mr. Hamline: Object to the question, as it does not appear from the witness yet that he knows what the purpose was.

A. I so understood it.

Mr. Hamline: I object, and move that it be stricken out.

Q. I see appended to the note on this map the names of

J. C. Woodruff, Lieut. Col. of Engineers, Brevet Brigadier Gen. United States Army; G. K. Warren, Major Engineers and Brevet Major General United States Army, and D. C. Houston, Major of Engineers, Brevet Col. Will you state if you know who those gentlemen were?

Evidence before
Master.

A. They were officers in the engineer corps and the commission appointed for the purpose of investigating this harbor question.

Q. And was this map made for their examination?

A. It was made for them, yes, sir.

Q. Was this map submitted to them at the time; did they have it before them when they made their report?

A. I couldn't tell that, because I wasn't present.

Q. Did they make a report establishing an exterior dock line?

Mr. Hamline: If you know.

A. I know they made a report.

Q. You know they made a report. Was this map prepared before that report was made?

A. Yes, sir.

Mr. Hamline: I move that the answer be stricken out as being a conclusion as to what the report was, when the report itself is the best evidence.

Mr. Ayer: The report is already in evidence; the whole of it is in evidence now in the original case.

Q. I find on this map the following: "No wharves should be constructed south of Randolph street until the rights of property affected are settled and the consent of the city obtained." Do you know who put that inscription on the map?

A. I put it on there.

Q. By whose direction?

A. Col. Houston's.

Q. Will you state whether at that time there had been any plans submitted by the Illinois Central Railroad Company for the construction of wharves along that front of the city between the river and Park Row?

A. Submitted to whom?

3-22-81 Q. This commission, or to the engineer in charge of the harbor here.

A. I think there was.

Q. Will you state whether there is not marked out upon this very map a plan of proposed docks for the Illinois Central Railroad Company between the river and Randolph street?

A. Those lines represent the proposed plan as furnished

Evidence before
Master.

me by the Illinois Central people, the engineer, Mr. Morehouse.

Q. Do you know whether the commission made a report on the subject of constructing wharves by the Illinois Central north of Randolph street?

A. I do not know the contents of the report; I know they made a report.

Q. Can't you say whether this map was before them for examination while they had the matter under investigation?

A. It was made for that purpose; I suppose it was, but I didn't see it.

Q. In regard to the vessels that are engaged in navigating the lakes; will you state whether the vessels employed since 1869 have been gradually increased in size and tonnage?

A. Very much, sir.

Q. You speak of appropriations having been made by Congress for improving the harbors; state for what purpose those appropriations have been expended, if you know.

A. For the purpose of facilitating commerce, making the harbors available.

Q. Making them deeper?

A. Deeper and projecting them out from filling with sand and debris.

Q. What was the object of deepening harbors?

A. So as to get draft of water.

Q. Will you state whether the small vessels, small sailing vessels that were largely employed in 1867—1866 and 1867 weren't superseded in a great measure by the much larger vessels propelled by steam and drawing more water?

A. They were.

Q. What has been the tendency during the last ten years?

A. To get all the draft possible.

Q. Will you state whether appropriations have been made by the government for the purpose of improving the navigation along what is called St. Clair flats?

A. Yes.

Q. For what purpose?

A. For the purpose of obtaining 21 foot depth of channel from Duluth to Buffalo.

Q. What is the necessity of procuring a 21 foot channel?

A. Vessels have been built larger and carry more freight.

Q. What is the character of the vessels now employed in the trade here at Chicago?

A. It varies; we have them from vessels to canal boats drawing 3 1-2 feet up to 16 feet.

Evidence before
Master.

Q. Don't use more than 16 feet draft?

A. Yes, but they can't get into the river.

Q. They get into the Calumet river?

A. Yes; in Chicago they couldn't on account of the tunnel.

Q. Can they get into the outer harbor?

Mr. Hamline: Objected to.

A. They do get there for shelter.

Q. Can they approach? There are no wharves in the outer harbor except those of the Illinois Central, north of Randolph street?

A. No, sir.

Q. Can they approach any of those vessels?

A. Not the largest vessels.

Q. Do you know what the depth of the water is along side of the wharves?

A. At the present time?

Q. At the present time.

A. I do not, sir.

Q. Do you know whether the water is deep enough to admit the large sized vessels employed in lake navigation?

Mr. Hamline: Objected to; he has already stated that he don't know how deep the water is.

A. I will answer in this way, that I know that in the slips C, D and E the number of vessels drawing from 12 to 14 feet can get in there and do get in there.

Q. Do you know how large the vessels are, vessels drawing how many feet of water can be towed up the Chicago river?

A. You mean the greatest depth of water?

3-22-82 Q. Yes.

A. With the present stage of water I think the maximum is 16 feet; they could go with greater depth were it not for the LaSalle street tunnel; they can't get over that.

Q. Never can, of course, until that tunnel is removed or depressed?

A. Lowered, yes, sir.

Q. All the largest sized vessels that come to this part of the lake are now obliged to go to South Chicago to load or unload, are they not?

A. Yes, sir; generally unload. They can unload below the bridge; they can get as far as LaSalle street with 18 feet.

Q. What is the distance from LaSalle street to the mouth of the river?

Evidence before
Master.

A. I should judge three quarters of a mile. I gave you the greatest variation of water from 1859 to 1873, that is as far as the record goes, but the greatest variation that we know of is 4 1-2 feet, which is the low water of 1847 to the high water of 1838, that makes seven-tenths more.

Q. Will you state of what the Chicago harbor consisted in 1860?

A. Consisted of the north pier extended as far as the lighthouse, and the south pier extending some 600 feet east of the Illinois Central dock.

Mr. Hamline: In the process of being filled in?

A. Not at that time, in 1860. In the fall of 1860 they made an extension of the north pier, leaving an opening of 400 feet from that lighthouse slip.

Q. Was there any harbor south of the south pier?

A. You mean available harbor for shelter?

Q. Yes, or to enable them to load or unload, south of the south pier and east of Michigan avenue?

Mr. Hamline: I object to the question, as the harbor is determined by act of legislature twenty years before. Object to the witness' interpretation of what is a harbor.

A. In the sense of a harbor there was not, because it was exposed.

Q. Was there anything except an open roadstead?

A. No, sir.

Re-direct examination.

Q. You know, as a matter of fact, do you not, Mr. Casgrain, that these extremely deep draft boats are engaged in carrying ore from Lake Superior?

A. Ore and coal.

Q. Don't you know, as a matter of fact, that the only place where ore is delivered in Chicago is down at the Illinois Steel Company's docks at South Chicago?

A. No, sir, I don't; because they deliver some up here, up the river, at the Union Mills.

Q. Isn't South Chicago where the bulk of the ore is delivered?

A. Yes, sir; generally.

Q. That the reason why boats go down there, because that is the place where their cargoes are consigned to the mill?

A. Generally speaking it is.

Q. Speaking of these fluctuations; is there any mem-

oranda on this chart, referred to by Mr. Ayer, that shows the mean water level from 1860 to 1888? That is, the average mean depth of the water?

A. Yes, sir.

Q. What is that with reference to the low water of 1847?

A. It is a foot and 7-10 above the water of 1847, the mean water surface.

Q. And how much is it below the high water of 1838?

A. Two feet and 8-10.

Q. As a matter of fact, Mr. Casgrain, the water in Lake Michigan is always lower in the fall and winter than it is in the spring and summer, is it not?

A. Yes, sir.

Q. On account of the rainfall and the melting of snow?

A. Yes, sir.

Q. So that in the winter months there will be a difference between the condition of the water in the summer months of about a foot, will there not, usually, every year?

A. A foot or more; it would average that. There is a difference in water level between the fall and winter and the spring and summer.

Q. In other words, in the months when navigation is not open, the water in Lake Michigan is usually a foot 3-22-83 lower than it is in the months when the navigation is open?

A. Generally so, sir.

Q. You spoke about water being very low in 1872?

A. That was of my own personal observation. I was building the Sturgeon Bay canal at that time, and all my references were made to the low water of 1847, as that had been the basis adopted by the State of Wisconsin for the construction of that canal, and it shows that during the winter months that the water fell 5-10 of a foot below that of 1847.

Q. I will ask you as a matter of fact, whether or not, since 1873 up to, say 1887, the water has not been, with rare exceptions, within a foot on either side of the mean water surface level you have testified to?

A. The last seven years the water has been above the mean level.

Q. Almost all the time?

A. Yes, sir.

Q. Then there would be sore of cycles of a number of years when the water would gradually rise?

A. Yes; been trying to establish them, they follow about

Evidence before
Master.

Evidence before
Master.

every seven years, but it is not regular, may be sometimes 8, may be 6, but from 6 to 9 years there is a cycle of high water and a cycle of low water.

Q. The last seven years prior to 1887, the water was high, above the mean level?

A. Yes.

Q. And then for a couple of years before that it averaged below the mean level?

A. Yes, sir.

Q. Then for two years before than, in 1876 and 1877, it was above the level?

A. Above again.

Q. Down to 1873 it was below?

A. Yes.

Re-cross examination.

Q. I notice in the newspapers that some apprehension has been felt that if the government deepens its channel at St. Clair, it will have a tendency to reduce the level of the lake.

A. I take no stock in that. The under fall of that water, you must remember, is spread over a large territory, now in deepening that channel you only enlarge a certain section of it and you confine that water in that section, increasing a little in velocity, this increased velocity that you have taken away from this water in the center and it will prevent a discharge —

Q. So it won't carry away any more water?

A. I don't think it will, sir.

Mr. Jewett: Will the Drainage Canal have any effect?

A. I don't think it will.

Re-direct examination.

Q. We have assumed, in introducing these maps, that these blue print copies are taken in lieu of the originals, on file in the office of the government. Can you tell us whether or not this is a copy of a map that is in the records of the United States Engineering Department here in Chicago.

A. I would say yes.

Q. Made by Col. W. F. Reynolds in the year 1865?

A. I would say yes, sir; because I had charge of Chicago harbor, in my district, and all these maps, of course, had to

pass through my hands, from the earliest of 1857 down to the time I left, in 1872.

Evidence
Master. bel

Q. And this map was made in the ordinary course of business, was it?

A. That was made in Chicago here, I think Mr. Greeley was the one who made the map in connection with Mr. Chesborough.

Q. Made for Col. Reynolds?

A. Made for Col. Reynolds.

Q. And this map is a record of the harbor line, outside breakwaters and soundings of the depths of Lake Michigan during that summer, is it?

A. Yes, sir.

Q. Part of the records of the department?

A. Yes, sir; part of the records.

Mr. Hamline: I offer this map in evidence as Exhibit P.

Mr. Jewett: We object to it, but let it go in subject to the objection.

Adjourned to Monday, January 21, 1895, at 10 3-22-84 o'clock, A. M.

January 23, 1895.

Met pursuant to adjournment.
Present as before.

CHARLES E. TOWNE, a witness called on behalf of complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your residence and occupation.

A. I am a lawyer; my residence from 1868 to 1890 was the city of Chicago, since that time I have been living in Ottawa, Illinois.

Q. Are you engaged in practicing law here in Chicago?

A. Yes, sir.

Q. And have been since 1869?

A. 1868.

A. Were you familiar with the lake shore in the neighborhood of 16th street during those years?

A. I was.

Q. How near to 16th street did you live when you resided in Chicago?

Evidence before
Master.

A. In 1871 and 1872 I lived on Park Row, three doors from the Illinois Central railroad and the lake.

Q. That is the south end of Lake Park?

A. At the south end of Lake Park and the east end of Park Row in 1872 and 1873 I lived at No. 6, 16th street, which is within 100 feet, or 200 feet of the property of the Illinois Central right-of-way; from 1878 to 1890 I lived at 1840 Calumet avenue, which overlooks the property of the Illinois Central.

Q. That is a couple blocks south of 16th street.

A. Three blocks south of 16th street.

Q. Do you recollect the time, calling your attention to a map introduced in the main case and known as the Morehouse map. Do you recollect anything about the line of piling traced out on the Morehouse map, at its right hand, and designated, "Built 1882?"

A. I do.

Q. Were you familiar with the lake shore in the neighborhood?

A. I was; used to pass it every day; that is, practically every day.

Q. Calling your attention to the circular structure to the left hand of lot 21, immediately to the right of which appear two rectangular black blocks on this map: do you recollect what those were?

A. It is an engine house and, I should say, a blacksmith's shop of the Illinois Central railroad; some of their works.

Q. Calling your attention to a red line, which appears upon that Morehouse map, Exhibit 10, in the neighborhood of and south of the engine house and blacksmith's shop referred to, I will ask you whether or not you recollect the line of breakwater at the point referred to about 1860 or 1870, along in there?

A. I haven't a distinct recollection as to the position of those breakwaters.

Q. Do you recollect whether or not the waters of Lake Michigan came near to the south end of that blacksmith's shop?

A. Yes, sir, it did, very near.

Q. About what time do you refer to?

A. 1860 and 1870 and 1871, I should say.

Q. How was it with respect to the east or lake side of these buildings; did the water come near at that same time?

A. It came, yes, sir, within, I should say, 60 to 80 feet.

Evidence before
Master

Q. Did you ever have occasion to become familiar with the depth of the water in the immediate neighborhood of that round house and blacksmith's shop about those years?

A. I have seen the boys bathing there, and have seen the boys fishing there; then I went bathing there myself one night. My recollection would be that to the east and south-east of the buildings the filling was largely of ashes, and that there was some piles driven in there, running out perhaps, oh, 20 feet farther than the land at that time extended, but it had been filled on the south side of those piles and the water, of course, sloped off where the ashes had been filled, so it was a gradual filling from the shore.

Q. Do you recall whether or not there was any filling made there after the great fire?

A. Yes, sir.

3-22-85 Q. Calling your attention again to the piling marked "built in 1882," do you recall whether or not there was an opening in the south of that piling?

A. Yes, sir, there was.

Q. Will you state whether you ever saw any tugs or vessels inside of the basin formed by that piling?

A. I have seen barges brought there with stuff to dump.

Q. About what time with reference to 1882?

A. I should say 1883 and 1884.

Q. And where was the dumping done?

A. All over the space.

Q. This enclosed basin?

A. Yes, sir.

Q. Was that dumping done continuously or when was it done?

A. Done spasmodically. There would be a fleet of these barges brought down there some evening and drawn inside of this place and they would all disappear by the next morning. Some evenings I would see two or three of them coming down the lake at a time, brought in there, and that would be continued for two or three days, then stop again, and we wouldn't see a sign of one for perhaps a week or two, then they would come again all at once.

Q. Those barges brought there by tugs?

A. Yes, sir.

Q. Regular tugs engaged in towing boats around the harbor?

A. Yes, sir, tugs, I don't know whether they were engaged in towing boats around the harbor or not.

Evidence before
Master.

Q. State, if you know, what effect that had upon the depth of the water inside of that basin?

A. It materially shallowed the water.

Q. You say this was mostly done late in the afternoon and evening and early in the morning?

A. The boats, scows, generally came about four or five in the afternoon; sometimes not till eight or nine in the evenings, summer evenings; would see them along at eight o'clock or seven o'clock. Seven to eight they would come around the corner and pull in.

Q. What were the characteristics of the action of the boats. The dumping done openly or furtively as near as you can say?

Mr. Ayer: It seems to me that all this evidence is utterly irrelevant and immaterial, and I object to it all and move that it be stricken out of the record. I want to preserve that motion.

A. It appeared to be done furtively.

Mr. Ayer: I object to that answer on the ground that if it is competent at all the witness must state facts and not his opinion.

The Master: The objection is well taken.

Q. What are the facts upon which you state that opinion?

A. The facts are that the citizens there, along—

Mr. Ayer: I object to this question.

The Master: The witness may state what the facts were in respect to the filling in and how it was carried on.

A. The facts were that the dredges used to come there periodically and would generally come late in the afternoon or early in the evening. They would come sometimes for two or three successive days, then not for two or three days. Sometimes not for a week or two. Then again they would come in the evening.

Q. State, if you know, whether any objection was made by anybody to the filling in?

A. I know there was a great deal of discussion among property owners along there and threats to do all sorts of things to the Illinois Central for filling in there, and by the time they got ready to move no more dredges would appear for four or five days or a week and the thing would kind of cool down and presently they would come again.

Mr. Ayer: That is objected to and I move to strike it out.

Q. Do you know whether or not they ever called on Mr. Ayer with reference to that matter?

Mr. Ayer: I object to that.

The general solicitor of the road?

Evidence before
Master

A. I do not know, sir, whether they ever did or not.

Q. Mr. Jeffrey, general superintendent of the road, lived down there, didn't he?

A. I think he lived on Michigan avenue, between Nineteenth and Twentieth.

3-22-86 Q. Do you know anything about property owners remonstrating with him in reference to the filling in?

Mr. Ayer: That question is objected to.

A. I have no personal knowledge.

Cross-examination by Mr. Ayer.

Q. Do you know where these tugs and this material came from that you say was dumped there?

A. I have no knowledge as to where it came from.

Q. Have you any knowledge as to what caused it to be brought there?

A. I have none.

January 23, 1895.

CHARLES H. MERRILL, a witness called on behalf complainants, being first duly sworn, testified as follows:

Direct examination by Mr. Hamline.

Q. State your name, residence and occupation.

A. Charles H. Merrill; residence, 514 W. Adams St.; occupation, coal dealer.

Q. How long have you lived in Chicago?

A. Forty years.

Q. Are you familiar with what is known as the Lake Front before the Chicago fire?

A. I am.

Q. I will call your attention to this map, Exhibit 10, known as the Morehouse map and the red line marked thereon and particularly to the extreme northern and eastern black spaces marked A and B inside of the red line marked "Ordinance of 1852." I will ask you if you recall what those spaces thus designated were occupied by prior to the fire in 1871.

Mr. Ayer: I object to the question.

Evidence before
Master.

A. There were two elevators and two slips on the spaces marked there.

Q. Calling your attention to this photograph marked "Whitefield's Views of Chicago," heretofore introduced in this case by the Illinois Central Railroad Company as Exhibit No. 6, I will ask you whether or not the elevators you refer to are exhibited on that photograph?

A. They are.

Q. I will ask you whether or not you were at any time familiar with the condition of the shore east of those elevators at the time when the elevators marked the boundary of Lake Michigan?

A. I was, yes, sir.

Q. About what year was that?

A. From 1857 to the time of the big fire.

Q. The fire was in 1871?

A. 1871. Yes, sir. Covering a period of about fourteen years.

Q. Do you recall the time when any additional land appeared outside of the elevators prior to the time of the fire?

A. I don't recollect the exact year that land was commenced to be built outside of that to the east of it. I don't know the exact year that work was commenced out there, but about that time I may say the railroad company; somebody apparently in authority, commenced to build out and encroach on the waters of the lake to the east of the elevators that were already there.

Q. Those are the old elevators A and B?

A. The old elevators A and B.

Q. I will ask you whether or not you can recall whether this photograph is a substantial representation of the condition of the lake shore north of Randolph street and east of the main station of the Illinois Central Railroad in the year 1860?

A. Substantially correct.

Q. Calling your attention to this pier that projects out east beyond the outside elevator with the lighthouse on the end of it, are you familiar with that pier?

A. Thoroughly.

3-22-87 What was that?

That was the north pier with the light-house at the extreme end.

Q. Do you recall the existence of a sand bed south of that light-house?

A. Yes, sir.

Q. Was it in existence about that time, 1860?

A. And for years afterwards.

Q. Is that about the line of the present outside government breakwater, east breakwater?

A. I should say the north breakwater was built right on that bar, it is almost in a straight line.

Q. Do you recall any time when the existence of that sand bar prevented vessels from entering into the Chicago river directly around this light-house?

A. I do.

Q. What route did the vessels take to get around that sand bar?

A. They came from the north to a line somewhat south of Van Buren street, then turned north again going past the old south pier into the river.

Q. At that time did the old south pier project much, if any, beyond the east elevator there?

A. Very little indeed.

Q. Calling your attention to a square rigged boat, a couple of them appearing on this photograph just south of the North Pier, I will ask you whether or not those boats as represented in that photograph were in the line of the channel that you say the vessels used to pursue in rounding the sand bar and sailing up into the Chicago river?

A. The one vessel to the extreme east to the right appears as though it were going out of the harbor. That was the route they ordinarily took. The other appears tied up at the lumber yards at the old North pier, but there did not, at that time, any vessels of any draft come past the light-house corner. They all took the south channel down in through the basin to the east.

Q. I will call your attention to the boat at the extreme right and near the Illinois Central tracks, and ask you whether or not at that point prior to the Chicago fire you were accustomed to see vessels engaged in ordinary practical navigation sailing about in the water there?

A. I did, yes, sir.

Q. State whether or not prior to the fire and subsequent to 1860, you ever saw vessels tied up to the dock on the extreme east end of which this outside elevator appears in the photograph?

A. I have many a time.

Q. And how was it to the south of that dock or enclosed land?

Evidence before
Master.

A. Oh, I have seen vessels tied up all along the break-water in front of the Illinois Central right of way from about, I should say, Eldedge court up to Randolph street.

Q. And north of Randolph street?

A. And north of Randolph street up to the old South Pier and past the elevators through there.

Q. Calling your attention to the Morehouse map and the enclosed space marked "Built in 1867," I will ask you whether or not prior to the construction of that dock built in 1867, you did or did not see vessels engaged in practical commerce navigating the water thus enclosed?

A. Yes, sir.

Q. Subsequent to 1860?

A. Prior to 1860 and after I returned from the army in 1865.

Q. Now, calling your attention to the breakwaters marked upon this Morehouse map as built in 1872 and 1873 and 1881 and 1880, I will ask you whether are not over the space enclosed by those docks you were accustomed to see vessels pass and engaged in practical navigation on the lakes prior to the time of the Chicago fire.

A. Yes, sir; that was in the ordinary channel or route through which these vessels came.

Q. Down until how late a period as you recall, was that the channel?

A. Oh, up to 1867, '68 and '69.

Q. All kinds of craft engaged in commerce?

A. Yes, sir.

Q. Sometime before the fire the mouth of the harbor next south of the light-house on the North Pier, was dredged out, was it not?

A. The sand bar was dredged out across the mouth of the river there.

3-22-88 Q. After that dredging took place the bulk of the commerce came directly around the light-house on the north pier, did it not?

A. Yes, sir.

Q. But subsequent to that means of entrance to the harbor being afforded, were the vessels accustomed to tie up to the docks that were then in existence and pass over the space now covered by the docks built in 1872 and 1881 and 1880, engaged in ordinary practical commerce?

A. There were no docks there at the time I speak of

when the harbor was dredged out but the bar was dredged out at the mouth of the harbor.

Q. I say were vessels thereafter accustomed, and prior to 1871, were vessels accustomed to pass freely over this space that is now occupied by these docks, engaged in practical commerce?

A. Yes, sir.

Q. Did you become familiar with the lake shore in the vicinity of Park row?

A. I did.

Q. And Twelfth street?

A. I did.

Q. Calling your attention to this red line on the map indicated "Breakwater as it was in 1869," on the Morehouse map, I will ask you whether or not, as you recollect it, that red line indicates with substantial accuracy the location of the Illinois Central breakwater in 1869, from Randolph street south?

A. Substantially correct, sir. My impression is there was a little opening at the end of the breakwater outside of the Illinois Central tracks somewhere about Twelfth street. I think just about Twelfth street; it might be a few feet north of that line.

Q. Opening in the spiles?

A. Opening in the spiles.

Q. I will ask you whether or not before 1869 you had occasion to go out through that opening?

A. Many a time.

Q. In what way?

A. Sail-boat and row-boat.

Q. Did you have to shift the mast in going out in a sail-boat?

A. Yes; there were two openings under the Illinois Central tracks, about a block and a block and a half north of Park row. Used to unstep the mast and go through the spiles under the two tracks to get into the open water outside.

Q. Did you become familiar with that breakwater running from Park row south to Sixteenth street?

A. I did.

Q. At and prior to 1869?

A. Yes, sir.

Q. In what way?

A. We used to go out sailing, fishing and bathing, night

Evidence before
Master.

after night, and in the course of our sailing expeditions we would go bathing and fishing, so that I was familiar with the entire shore during that time.

Q. South of the round-house and machine shops, which are north of Sixteenth street, as well as north of them?

A. Yes, certainly; both north and south.

Q. In 1869 was there any land outside of this red line marked on this map?

A. No, sir.

Q. Were you familiar with the depth of the water immediately outside of this red line which appears on the Morehouse map, east of block 23?

A. Yes, sir; I knew the depth of the water there and along the entire shore outside of the old breakwater, and past the corner at about Sixteenth street, where the round-house and the blacksmith shops are located.

Q. Can you state what the depth of the water was in 1869 over the Illinois Central breakwater, immediately to the east of it; east of block 23, and prior to 1869?

A. Not less than nine or ten feet. It got deeper as we got outside and rounded off toward Sixteenth street.

Q. Now, calling your attention to the turn in this red line immediately east of the north line of what is marked on this map as "Lot 21," I will ask you whether or not you were familiar in 1869 and prior thereto with the depth of the water at that point; that is, where the red line produced from the east turns abruptly to the southeast, next south of the machine shop?

A. On the outside of the ground where the round-house is marked on this map the water was from ten to twelve feet deep; as we passed by the corner going south the water was fully that depth also. It shoaled in toward the shore, because the filling from the round-house and the blacksmith shop, cinders and all that, had been thrown in there, 3-22-89 and that gradually became a rounded basin in through there. Previous to that time, the water came clear up under the piling that the tracks were built on, so much so that I remember of a fence being built along the lake shore there that was washed out many times and hung by the stringers, and it was all loose underneath. The dirt had been washed out from underneath that so there was water on the lot to the west of the fence line. At the outside point where the round-house came out there were a few

piles that were outside, and the water was from ten to twelve feet deep.

Evidence before
Master.

Q I will ask you if you recall or can state what the average depth of the water was immediately next east of that breakwater from say Park row down to 16th street?

Mr. Ayer: He has answered that question once, and I object to the question.

A. The depth of the water, as I recall it, from about 12th street south to 16th street, outside the line of the breakwater, would average from about nine to twelve feet in depth the entire distance.

Q. You were in the army?

A. I was.

Q. Prior to that time you went into the army, what was your business?

A. I had none; I was a school boy.

Q. You went from school into the army?

A. Yes, sir.

Q. What was the business your father was engaged in?

A. He had a planing mill and a saw mill at the foot of Carroll street, where the St. Paul elevators now stand, on the west side of the river.

Q. Did you become at all familiar with the lumber trade in that connection?

A. I did, yes, sir. Well, I will qualify that; I became familiar with the owners of vessels; I didn't know much about the trade at that time, but I became acquainted with the tug men and the vessel owners and captains.

Q. And were you not more or less familiar with that business after you came back from the war?

A. Yes, sir.

Q. And how familiar did you become with the shipping of Chicago, say from 1865 to the time of the fire?

A. I was engaged at that time with Charles P. Kellogg & Company, at 24 and 26 Lake street, between Wabash and Michigan avenues; I was their bookkeeper and cashier, and lived on Washington street between Wabash and Michigan avenues; roomed there and took my meals on Wabash avenue, just north of Madison street. Every spare hour I had I was out either boating or fishing or bathing; that is, after business hours.

Q. Out on the lake front?

A. Out on the lake front, yes, sir. We used to go down on Randolph street and get boats from there and go outside

Evidence before
Master.

every opportunity that we had, and, while I am a little ashamed to say it, Sunday was my best day, as I had the whole day off. In that time I became acquainted and renewed acquaintances I had made prior to enlisting in the army, with the tug men and vessel men coming into the harbor here

Q. I will ask you whether or not, before the fire, you became familiar with the territory outside of this red line, from the river down to 16th street?

A. Thoroughly.

Q. Now state whether or not there was any place, from the river to 16th street, that vessels engaged in practical navigation and commerce on Lake Michigan were not accustomed to sail or to tie up or anchor, as their convenience might suggest, next east of this breakwater?

Mr. Ayer: What period was that?

Mr. Hamline: 1869 and prior thereto.

A. There was no hindrance to the passage of any vessel up to that time, excepting over the bar that extended south from the old north pier.

Cross examination by Mr. Ayer:

Q. What time did you go into the army?

A. In 1861, September.

Q. What was your age at that time?

A. Eighteen.

Q. Before that, as I understand you, you had been engaged in no business in Chicago?

A. I may correct that statement by saying that from the commencement of my vacation, about the 1st of 3-22-90 July, 1861, until I enlisted in September, I was engaged with J. H. Dole & Company, on South Water street. My period of business at that time was so small that I hardly said that I was in business.

Q. Down to that time you lived with your father on the west side?

A. Yes, sir.

Q. When did you return to Chicago after your first enlistment in the army?

A. In February, 1865.

Q. Have you lived here ever since?

A. Yes, sir.

Q. In what business engaged?

A. Twenty-five years with Charles P. Kellogg & Company, wholesale clothing, as their cashier.

Q. When did that engagement terminate?

A. First of February, 1890.

Q. In what business have you been engaged since?

A. In selling southern coal and iron and timber lands, and in the coal business.

Q. On your own account?

A. My own account, sir.

Q. Were you ever engaged in any way in commerce on the lakes?

A. None.

Q. Did you own any interest in vessels?

A. No, sir.

Q. I understand you to say that you had seen vessels tied up along the breakwater of the Illinois Central Railroad Company, all the way from Eldredge court up to the river, or to near the river; will you state what kind of vessels you refer to?

A. Sailing vessels and tugs.

Q. What kind of sailing vessels?

A. Well, they were mostly schooners.

Q. You mean schooners engaged in commerce?

A. Engaged in the lumber business and in grain.

Q. What was the last time you ever saw a schooner engaged in the lumber business or grain tied up along the breakwater of the Illinois Central Railroad anywhere between Eldredge court and Randolph street?

A. During the summer of 1871, just prior to the fire.

Q. That is the last time?

A. The last time I had my attention called especially to it, sir.

Q. What vessel was that?

A. I have no idea.

Q. Where was she tied up?

A. She was lying there at the breakwater about opposite Van Buren street, if I recollect rightly.

Q. Was she loaded or unloaded?

A. Loaded.

Q. What season of the year was it?

A. Summer.

Q. Do you know what she was tied up there for?

A. I do not.

Q. Or how long she laid there?

Evidence before
Master.

A. I do not.

Q. What size vessel was it?

A. Well, that is hard to answer because it is—it was a good sized lumber schooner.

Q. Loaded, you say?

A. Loaded with lumber, deck load and all.

Q. Know whether the lumber was unloaded there?

A. Not to my knowledge.

Q. Was the vessel driven in there by a storm?

A. No, sir.

Q. Was it towed in there and tied up?

A. I don't know how it came there, I simply saw it there.

Q. How long did it remain there?

A. I saw it twice during that day; it was at the docks early in the morning and in the afternoon it was still at the same place.

Q. What dock do you refer to, you speak of docks.

A. I mean the breakwater just outside of the piling the Illinois Central tracks run on.

Q. At that time was the roadway or the space occupied by the Illinois Central Railroad Company filled in, or did the tracks run on piles?

A. Run on piles.

Q. And this vessel was tied up at that piling?

A. No, sir; tied up to the breakwater outside of the piling.

Q. What breakwater?

A. There was a line of breakwater run outside of the Illinois Central tracks.

Q. Line of piling?

A. No, it was a breakwater, sir.

Q. Didn't the breakwater consist of a line of piling, double line of piling with stones between?

A. It was filled in with stones, yes.

Q. At what other time have you ever seen any vessels lying between Eldredge court and Randolph street along that breakwater?

A. I don't recall many instances after that time.
3-22-91 Q. You just said that was the last. I understood you to say that was the last time?

A. That is the last time I am absolutely positive of as to the year in which I saw a vessel tied up there.

Q. I will ask you to state any other time when you have

seen any vessel tied up there anywhere along from Eldredge court to Randolph street? Evidence before Master.

A. Prior to the date I gave you?

Q. Yes.

A. I know of times from 1865 up to 1869 and 1870.

Q. Do you recollect any particular vessel?

A. I do not.

Q. Do you recollect any particular occasion?

A. Not enough to fix the date absolutely, sir.

Q. Were you in any way interested in those vessels?

A. Not a particle.

Q. Nor in their lading?

A. No, sir.

Q. Referring now to the depth of the water along that breakwater. Do you know how deep the water was opposite the foot of Eldredge court just immediately outside of the breakwater and along the breakwater?

A. Not to an absolute foot, but within a foot or two positively.

Q. How do you know that, how did you get the knowledge?

A. We often had occasion, in going out there, in unstepping our mast for the sail-boat, getting outside of the breakwater there, to test the depth of the water. We did it more for fun than anything else, and often in going in our row-boats the long oars we had would be put down to see how deep the water was in through there; sometimes after a big storm we would find the passage a little filled in, then again it would be deepened.

Q. How large were these boats that you used for sailing?

A. They would run from 6 to 7 foot beam.

Q. How much water did they draw?

A. They didn't draw over from 10 inches to 13 or 14.

Q. 10, to 13 or 14 inches?

A. That is all, yes, sir; they were skimming dishes.

Q. Where was this opening in the breakwater through which you obtained access to the lake?

A. About opposite Eldredge or Harmon court, very close to that point.

Q. Was it at that opening where you sounded the depth of the water?

A. Yes, sir; and right outside as we got out in the open lake.

Evidence before
Master.

Q. Near that opening

A. Near that opening.

Q. And can you state any more definitely whether that opening was at the foot of Eldredge court or foot of Harmon court?

A. It is a good many years ago, Mr. Ayer, and I couldn't tell exactly the location, but it was just at the south end of the basin; as we used to sail down there we would haul our center board up and unstep the outside mast, and when we had a boat too wide to go through without dipping, we would have to tip it up and push it through.

Q. What was the depth of the water at the lower end of that breakwater near Park row?

A. The breakwater or the basin?

Q. The breakwater, just outside the breakwater at Park row?

A. Fully 10 feet.

Q. Immediately adjacent to the breakwater, you mean?

A. Yes, sir.

Q. Are you as positive of that as you are of other statements you have made in regard to the depth of the water?

A. I am.

Q. 10 feet?

A. 10 feet. I said before from 9 to 10 feet; I should say now, I make the same answer, from 9 to 10 feet, depth of water right at the breakwater.

Q. How deep was it along the line of piling on which the tracks were laid at Park row?

A. Where the tracks passed over at Park row the water shallowed down considerably; inside of the basin it run down to the shore line, and right at Park row I don't think it was over 7 to 8 feet in depth; 6 or 7 feet, somewhere near there there was a jog in the land that shallowed up.

Q. What was the depth along the line of piling inside of the breakwater; I mean the piling on which the tracks were laid from Park row north?

3-22-92 Mr. Hawline: Objected to, unless he had occasion to investigate the depth along the railroad tracks.

A. I had no occasion to investigate thoroughly there, sir; never thought anything about it.

Q. You sailed there, did you not?

A. Yes, sir.

Q. Had just as much occasion to ascertain the depth there as you did outside?

A. No, sir.

Q. It was shallower, wasn't it, inside than it was outside?

Evidence before
Master.

A. I should say so, yes.

Q. Why didn't you have just as much occasion to investigate as to the depth of the water inside of the break-water as you did outside?

A. For two reasons; one was that we were liable to get a ducking every time we went through that piling, pushing our boat through, and I had occasion many a time to test the depth of that water by being pitched overboard head first. The second was, we used to go bathing right outside there, and the boys who were with us all the time would never take a jump and dive off that pier into any shallow water, and we used to go down with a straight jump and hold our hands up to show the depth of the water, as far as we could.

Q. When you speak of these excursions when you went out sailing and swimming, how long ago was that, to what period do you refer?

A. I refer to from 1856 and 1857 to 1870, taking out the time I was in the army.

Q. How recently has your attention been recalled to these matters?

A. To what special points?

Q. In regard to the depth of the water out there?

A. Within two months.

Q. Did you have any memoranda by which you could refresh your memory?

A. I had none excepting the ordinary conversation I had with Mr. Hamline in regard to this matter.

January 23, 1895.

JOHN G. SHORTALL recalled for direct examination by
Mr. Hamline:

Q. Can you tell us the miles of frontage that the State of Illinois has on Lake Michigan?

A. Yes.

Mr. Ayer: I object to that.

A. Approximately, allowing for the trend eastward, 66 miles.

Q. That on a straight line or curve?

A. No, it is allowing for the trend of the lake eastward along the line of the bank.

Evidence before
Master.

Q. From the Indiana state line to the Wisconsin state line?

A. Yes, approximately 66 miles.

Q. On that frontage, how much is within the limits of the city of Chicago?

A. About 22 miles.

Q. That includes the eastward trend?

A. Yes.

Q. I will ask you whether or not there is any protection to shipping along the lake frontage within the limits of Chicago, other than between the Chicago river and 13th street, by breakwaters?

A. Except the government improvement north of the river and this dock at 16th street built by the Illinois Central, I know of none.

Q. Does that dock at 16th street really afford any protection in case of storm?

Mr. Ayer: Objected to.

A. I should think not, except to very small boats.

Q. Is it possible to get into that dock in case of storm with a boat?

A. I should think it would be very difficult, almost impossible to get in with the wind blowing hard anywhere from the eastward.

Q. Are you familiar with the depth of the water outside the breakwater built outside of the Illinois Central trestle work prior to the year 1869—at and prior to that year, between, say Park row and 16th street?

Mr. Ayer: I object to this testimony.

A. In the vicinity of Harmon court and Park row and 12th street I was very familiar with it all in exactly the same way that Mr. Merrill, who has just testified, was familiar with it, by sailing through the same openings that 3-22-93 he has testified to, and reaching the lake by that channel between the two rows of piling, which we always supposed was left for the purpose, and it appeared to be so constructed for the convenience of those desiring to get in and out from the basin which was west of the track, and the lake outside, and at those points the water was very deep, that is, just outside that outside breakwater, I mean, and immediately inside it in that channel, between Harmon court and 12th street and a little below it; at the entrance to the channel the water was very deep.

Q. Were you accustomed to go in swimming along there?
Evidence before Master.

A. Yes.

Q. Fishing?

A. Yes.

Q. Sailing?

A. Sailing, just as has been described by Mr. Merrill.

Q. And about how deep was the water there from Park row south of 12th street on the east or outside line of the outside breakwater?

A. I should say not less than from 8 to 12 feet; that depth easily, as I recall it, in the same way that Mr. Merrill has testified.

Mr. Ayer: To what time do you refer?

A. I refer to 1859, 1860 and 1861, before and after.

Q. Prior to 1869?

A. Yes, prior to 1869.

Q. I will call your attention to that Morehouse map marked "Illinois Central Exhibit number 10," and ask you whether or not that red line marked thereon as breakwater in 1869, is in the same relative position that the breakwater was in 1869, if you recollect it?

A. As I remember it, substantially so. I have no means of knowing, at the moment—of verifying the figures at all, but I should say it is substantially correct.

Q. Do you recollect the round-house being situated inside the breakwater near lot 21, before the Chicago fire?

A. Oh, yes, sir, I remember this round-house here.

Q. What were they? (Indicating.)

A. Those were machine shops, I think.

Q. On this Morehouse map there is a round-house marked still farther east than the first round-house I called your attention to; that was built since 1869, was it?

A. I don't remember the year in which it was built, but it was subsequent to the other two; that is, I remember this existing here before the other was built.

Q. Calling your attention to the time when you recall the first round-house in existence, and the second one not being in existence, and to the breakwater that was east of this first named round-house and thence a little below the round-house turned to the west, I will ask you whether or not you were familiar, prior to the year 1869 and about that time, with the waters of Lake Michigan outside of the breakwater?

Evidence before
Master.

A. Yes, somewhat familiar with them as a resident of the neighborhood would be, continually using the lake for boating and so on.

Q. Now I will ask you whether or not you sailed over the waters of Lake Michigan just outside of this breakwater indicated by the red line on the Morehouse map?

A. Yes, I have sailed in the waters of Lake Michigan just outside of that breakwater.

Q. And south of that breakwater?

A. South and north of it, both; south and north of the round-house.

Q. South and north of the old round-house?

A. Sailed all in here, yes, sir. (Indicating.) And sailed over the—

Q. The waters of Lake Michigan next east of this red line?

A. Yes.

Q. At all points?

A. Certainly.

Q. Did you become familiar with the depth of the water next east of this red line, or line of breakwaters?

A. Familiar with it, as one would be boating frequently, thrusting a fishing rod down frequently, thrusting an oar down to find bottom, for any particular purpose. The use of a boat up and down the line involves, to most people who use boats, a knowledge of the depth of the water; may not be actually measured, but it will be approximately correct.

Q. Do you know whether or not the sand was accustomed to lodge down there south of 12th street, or did the water cut in?

A. There was a strong current there down the shore along down through here. (Indicating.) I think this map actually represents that at the point here opposite lot 21, 3-22-94 there was a cutting quality down there of the current that swept in, and at 16th street it was very perceptible. I think it was stayed north of 16th street at about the round-house by the construction of the round-house and by the accumulation of debris and cinders and stuff in that immediate vicinity, then it swept it in and cut away at 16th street and the water came up under the tracks. The margin of the lake on the Huntington lot, as I testified before, was in close proximity to the center of Prairie avenue. It swept in there and the railroad, as I remember it,

was carried across on piling at that point. I am talking now about 1859, 1860 and 1861.

Q. I am talking about 1869. The map in question, the Morehouse map, bears upon it a red line delineating, as it seems to be, a line of breakwater as it was in 1869.

A. I should say it was accurate in certain years, as I remember it.

Q. And assuming the red line to be a point east of which there was no land, I will ask you whether or not you became familiar with the water?

A. Yes, certainly, as I have testified.

Q. And what do you recollect its depth to have been about 1869 and prior thereto?

A. I should say the general or average mean depth of the water along there was from 7 or 8 to 10 or 12 feet. I should say that 8 or 9 feet would be a fair estimate of the average depth.

Q. Do you recollect of ever seeing any barges inside the basin created by the breakwater marked on the Morehouse map as built in 1882?

A. Yes, distinctly.

Q. About what year?

A. When they were building it. It is marked here 1882; I remember about that time barges coming in and depositing dirt and material; stuff, trash.

Q. Whereabouts?

A. Up at the northerly end of it.

Q. In the water?

A. In the water, yes.

Q. How were those barges brought in?

A. They were either towed in or pushed in by the tugs.

Q. Did that continue for some time?

A. Yes, it continued off and on for considerable time. There was considerable protest about it by the neighbors, and great objection made.

Q. Did you ever go up and see the Illinois Central people about it?

Mr. Ayer: I object to that question.

A. No, I don't remember that I ever have.

Q. Not on that point?

A. No.

Q. For quite a while the B. & O. Railroad used the tracks or right of way and premises of the Illinois Central Railroad, did it not?

Evidence before
Master.

A. Yes. I so understood it.

Q. And that use has ceased, has it not?

A. Yes.

Q. They are not along there?

A. Not along there.

Q. Do you recollect of the construction of any propellers on the land within the limits of this structure marked "Built in 1882?"

A. Yes.

Q. West of the basin thereby formed?

A. Yes.

Q. About what time were those boats built?

A. I should say 9 or 10 years ago, one of them.

Q. Do you recollect the boat called the Vernon?

A. Yes.

Q. Launched down there one day?

A. Yes.

Q. Afterwards lost on the lake in a storm?

A. Yes, I have been in her; walked all over her.

Q. Where was that boat launched? Inside the basin?

A. Oh, yes, very close, I should say, to the outer side of that red line, that breakwater.

Mr. Ayer: You mean south of the round-house and machine shops?

A. Yes, south of the round-house and machine shops.

Q. Up towards the north end of the basin?

A. Yes.

Mr. Ayer: The north end of the 16th street slip, as we called it?

A. Yes, the north end of that 16th street slip.

Q. Calling your attention to this map, Exhibit 10, where was it launched with reference to the red line thereon?

A. As near as I can remember, it was opposite lot 21 and outside of this red line and south of the round-house and machine shops.

3-22-95 Q. That is where she slipped into the water?

A. Yes, she was launched there. There was a sort of a shipping yard there that a man by the name of Smith had, and he had built other boats and launched them from this same vicinity.

Q. And about how large was this Vernon?

A. I should say, as I remember, it was certainly 100 feet or over long, and probably 25 feet beam, and would, I think draw light, 5 feet of water, at least.

Q. How high did she stand there on shore?

A. I should think she stood 25 feet as I remember her. She was a regular, good sized, ordinary lake propeller.

Q. And these other couple of boats that you speak of as having been built up there before that time?

A. Those were smaller, much smaller, as I remember them; one was the Arrow, built for George Sturges, and subsequently taken up to Lake Geneva, and the other I don't remember. I remember certainly three boats there, but the third boat made no particular impression on me. I know George Sturges' was one case; I know of his boat having been built there.

Q. Was this Vernon a boat of about 1,000 tons burden, or 800?

A. I can't give you the measurement, I don't know. She was built for business; it wasn't a pleasure craft; as I understood it, she was built for lake business.

Q. Do you recollect the time, September, 1888, when a decree was entered by Judge Harlan in this case?

A. I remember the circumstances.

Q. And that was after the time that Mayor Roche stopped the filling in down near 16th street.

A. Yes.

Q. You recollect that south of the south line of lot 21, Mayor Roche, at the beginning of his administration, caused all filling to be stopped.

A. Yes.

Q. That was in the early part of the summer of 1887?

A. Yes.

Q. Do you recall that there was nothing further done towards constructing any slip or filling anything in south of the south line of lot 21 until after this decree was entered in September, 1888?

A. That is my recollection.

Q. And whatever has been built down there, has been built since the decree was entered by Judge Harlan in the circuit court.

A. Yes, that is my recollection, very clear.

Mr. Ayer: You refer now, I suppose, to the construction of that slip near the foot of 16th street?

A. Yes.

Q. Do you recollect the Illinois Central Railroad afterwards building a slip down there at 16th street, being the slip that appears in Greeley's map here?

A. Yes, sir, I remember the construction of the slip, as you say.

Evidence before
Master.

Q. Same slip that appears in your photographs?

A. Yes; I presume it was built by the Illinois Central railroad.

Q. Calling your attention to Mr. Greeley's map which is introduced in evidence as Exhibit O, South Map, and to the basin that appears at the south end of this exhibit marked in large black letters, "Slip;" do you recollect, since that was constructed by the Illinois Central Railroad Company, any attempt on their part to fill in that water bounded by the dock, and marked slip?

Mr. Ayer: Objected to as immaterial and irrelevant.

A. I don't remember the exact condition of finish that was put about it at the time, but that there were scows brought in there and material deposited at the north end of that slip after its outline was clearly defined by piles and construction.

Q. You observe on this map the space marked "slip"?

A. Yes.

Q. And you observe docks on each side?

A. Yes.

Q. Those were built subsequent to 1888, at the time of the decree?

A. Yes.

Q. And now I will ask you whether, after these were built there was any attempt on the part of the Illinois Central railroad at any time to fill in this basin, to your knowledge?

A. I can't answer the question satisfactorily in any other way than the way I have done. In other words, I remember that when the outlines were created, and piles driven—

Q. I am not talking about that.

3-22-96 A. I don't remember distinctly.

Q. Do you remember an application being made to enjoin the Illinois Central from filling in and building the north end of this slip, in this lake front bill you filed?

A. Yes, I filed a bill.

Q. Do you remember an injunction being subsequently asked for?

A. Yes. That is in regard to the filling of which you speak now.

Q. Yes.

A. Yes; that was made the subject of that bill, of course it was.

Q. You don't understand me. I will ask you whether or not you know that subsequent to the time that the bill was

filed by the Attorney General on the relation of yourself, Mr. Wells and others, in 1886, and something like three years afterwards, after the slip as it now stands was completed a petition was presented to Judge Shepard and he was asked to enjoin the Illinois Central railroad from filling in the slip as it now stands, and such injunction was granted?

A. I can't answer distinctly. I remember, as I said before, that while this was clearly outlined and probably constructed as it now is, but which year it was I don't remember distinctly; there was an attempt on the part of somebody, presumably the Illinois Central, to deposit material in the north end of that slip.

Mr. Ayer: Wasn't the object of that to throw the material over after it was deposited in the slip, to throw it over outside of the slip on the piers surrounding it?

A. I don't know what the object was.

Q. Calling your attention to the time that you had this meeting at Mayor Roche's office, and Mr. Ayer was there representing the Illinois Central, and a number of property owners, do you recollect of Mayor Roche asking Mr. Ayer, that if the railroad company would agree not to fill any more, or not to allow any more filling to be made down in that vicinity, that he would call off his policemen?

A. I don't remember such an expression as that. I do remember simply this, that it was determined by the city government, at the instance of the public down there, that there should be no more encroachment upon the lake by the Illinois Central, and that sufficient police force was ordered down there to prevent it.

Q. Do you recollect whether or not Mr. Ayer, representing the railroad, insisted that the railroad had a right to have that filling go on?

A. Yes; I remember there was a general idea of that kind, because that was what we came to combat.

Q. That was the attitude of the railroad?

A. Yes, that was what we came to combat at that meeting.

Mr. Hamline: I offer in evidence the testimony of Mr. Morehouse that is already in this case, a witness for the Illinois Central Railroad Company, as follows:

Mr. Ayer: I offer the remainder of the evidence of Mr. Morehouse.

Mr. Hamline: I understand that under the decisions of the Supreme Court they will take notice of all public laws

Evidence by
Master.

Evidence before
Master.

and decisions of Illinois, for instance, in this case, and I therefore will not offer the decisions and laws, but, in order that no one can say that, while evidence is being taken I did not declare my position, I expect to argue, when we get to the case, that by the law of Illinois being the common law of England, the riparian owner is not entitled to go out upon submerged lands and fill in those lands one single foot, for any purpose, without the consent of the state.

Adjourned to Thursday, February 7, 1895, at 10:30 o'clock A. M.

3-22-111

February 7, 1895.

Met pursuant to adjournment.

Present as before.

Cross-examination of John G. Shortall by Mr. Ayer:

Q. Where do you reside—I mean what part of the city?

A. At the corner of 16th street and Prairie avenue.

Q. How long have you lived there?

A. On that block, between 16th and 18th streets, between 34 and 35 years.

Q. When did you purchase the property at the corner of 16th street and Prairie avenue where you now reside?

A. I purchased it originally 25 to 30 years ago. That purchase was never consummated owing to the difficulty with the title and litigation. I finally purchased the property, half of it in the year 1879 and the other half in the year 1880, as I remember.

Q. When did you build your house?

A. I built my house about eight or nine years ago, the present house. My former house I built, I think, in 1865. I built my present house, on this lot, as I say, 8 or 9 years ago, but I owned property in the block before this and I have been a resident of the block, as I said, from 1859 or 1860, say.

Q. Where was your first house?

A. My first house was in the middle of the block, between 16th and 18th.

Q. Fronting on Prairie avenue?

A. Fronting on Prairie avenue, east.

Q. Before you went there to reside, in what part of the city did you live?

A. On the south side, on the corner of Lake and Michigan avenue, in the old Cobb House and on Michigan avenue, opposite the Marine hospital; the north end of Michigan avenue.

Q. Had you ever lived in this immediate vicinity before you built your first house on Prairie avenue?

A. Yes, I lived next door, in my father-in-law's house, Mr. Staples.

Q. How long?

A. From 1859 or 1860 until the time I built my own house in 1865, or thereabouts.

Q. Where did you reside when the Illinois Central railroad was constructed into the city of Chicago, in 1852 or 1853?

A. In New York city.

Q. What year did you come to Chicago?

A. 1854.

Q. Were you ever engaged in shipping or commerce on the lake?

A. Never.

Q. Do you know anything of the condition of the shore at 16th street in 1852 or 1853?

A. No, except by hearsay.

Q. You say, as I understand you, there was a current in the lake in 1859, 1860 and 1861, which tended to abrade and wear away the shore opposite 16th street?

A. I don't mean to be understood that there was any extraordinary current in the lake at any time, but the ordinary currents that were existing then and are existing to-day and visible in their effects by the constant deposit of sand on the north side of piers and projections into the lake, and the sweepings or scourings behind those projections that are almost everywhere visible.

Q. Do you know how long this process of erosion had been going on when you came to Chicago in 1854, at this place?

A. No.

Q. Do you know how far the land between 16th street and say, the line of 16th street and the line of 12th street extended into the land when the Illinois Central railroad was located?

A. No.

Q. You speak of the interference by Mayor Roche with what you call the encroachments upon the lake by the Illi-

Evidence before
Master.

Evidence before
Master.

nois Central Railroad Company, and his ordering sufficient police force there to prevent any further invasion by the company. Will you state whether or not Mayor Roche instructed his police to prohibit the continuance of the work on the 16th street slip after the decree in the present case was entered in the Circuit Court, or after Judge Harlan's decision in this case had been rendered?

A. Exact dates there are not clear in my mind, but my recollection is to the effect that Mayor Roche directed this filling up by the Illinois Central, these encroachments of which we speak, to cease, and put policemen on duty in the vicinity to see that his orders were obeyed, after we had applied to him for that purpose, which was, as I remember it, very soon after his election, but I cannot be clear as to the relation of that time to the dates you allude to. In a bill which I signed at some time the statements are true, whatever dates are referred to in that bill are from personal knowledge at the time.

Q. Do you know when Mayor Roche entered upon the duties of the office of mayor?

A. Well, that is not clear in my mind, I think in 1887.

Q. The decree in this case appears to have been entered September 22, or September 24, 1888, and the opinion of Judge Harlan was filed February 23, 1888; do you know, or can you state whether Mayor Roche interfered with his police force to prevent the completion of the 16th street slip, so called, after the delivery of Judge Harlan's opinion?

A. That brings me back again to a statement of absolute dates which I am not clear about, and can't answer.

Q. You say that you applied, and I infer, with others; will you state who the persons were that applied to the mayor to interfere in this matter?

A. There were several: Wirt Dexter, Robert Law, Mr. Hamline, McBurneys, I think, and others.

Q. Were these gentlemen all residents in the immediate vicinity of Prairie avenue and 16th street?

A. They were.

Q. Were they also all political friends of Mayor Roche?

A. No, I think not, by any means.

Q. Was Mr. Pullman one of the gentlemen who interested himself in this matter?

A. I think he, as all other residents of the vicinity, were interested, but whether he was as prominently connected

with it or with this remonstrance as some of the rest of us, I am not sure; I think not.

Evidence before
Master

Q. You say not as prominently, but was he one of the persons concerned in making this application, directly or indirectly?

A. We felt that we had his moral support.

Q. Was any fund raised by the gentlemen especially interested for the purpose of securing police interference, or any other interference?

A. No. Well, legal interference, yes.

Q. Who contributed to that fund?

A. I think Mr. Hibbard was one of the principal contributors. A number of us gentlemen agreed to contribute to the fund, and some money was paid and some not called for; think there was not any methodical collection of funds for that purpose, although many stood ready to contribute.

Q. Were any counsel retained by the gentlemen spoken of?

A. I understand Mr. Hamline was. Well, at what time are you speaking of? I am speaking now of the subsequent legal proceedings. The interference, if you are speaking about that, of Mayor Roche, in the matter, there was no counsel employed that I know of, for that purpose, that was purely a spontaneous and immediate action on the part of the people about there.

Q. Who went to see Mayor Roche in the first instance on the subject?

A. I can't say. I remember telephoning him myself one Sunday morning early, on the subject.

Q. Did you afterwards see him yourself?

A. Yes.

Q. Can you state what counsel were at any time retained by these gentlemen, or some of them that you have mentioned, for the purpose of commencing or continuing legal proceedings?

A. Of my own knowledge, no, I cannot.

Q. Can you state what counsel were retained?

Mr. Hamline: I object, for he says he don't know.

A. I understood, as I said, that Mr. Hamline was interested as counsel in the matter.

Q. Was any one else employed in the matter? Was any money paid to any other counsel beside Mr. Hamline?

A. Not that I am aware of.

Evidence before
Master.

3-22-113 Q. Was any money used to pay any counsel engaged in this case at that time or afterwards?

A. I can't answer that question. I said not of my own knowledge.

Q. Do you know that there was an information filed by the United States District Attorney in regard to this matter, for the purpose of testing the right of the Illinois Central Railroad Company to make improvements along the lake shore?

A. Information filed by Mr. Hunt?

Q. Do you know of any information that was filed by the District Attorney of the United States, in the name of the United States?

A. It is not clear in my mind.

Q. Don't recollect it?

A. No. The general fact of litigation progressing, is within my knowledge, but the separation of that into various suits is not within my knowledge.

Q. Who had the disbursement of this fund that was raised by the property owners?

A. I know nothing about this fund, as I said. Although ready to contribute to it, I never had been called upon to my recollection, and yet it is possible that I may have paid something myself in the course of years, and have forgotten it.

Q. Who had the disbursement of the fund?

A. Well, I should say, if any one, Mr. Hibbard. I did not.

Q. Have you a general idea how much was raised?

A. No, I have not.

Q. Know whether there was more than one contribution called for?

A. Well, the money agreed on our part to be paid I am confident has not all been paid, otherwise I should have been conscious of some of that payment myself.

Q. Do you know at whose suggestion the information was filed by the United States District Attorney in behalf of the United States?

A. No, sir.

Q. Did you know of, or did you hear of an effort made to procure such an information to be filed, or to procure in any way the intervention of the United States authorities?

A. As I said before, the separation of the general litigation into different classes of proceedings, is not within my knowledge. It was generally understood—

Mr. Hamline: I object to any understanding on the part

of the witness. It must be clearly apparent that we want his knowledge and not his understanding.

Evidence before
Master

A. I understood——

Mr. Hamline: I ask the Master to instruct the witness that he must only testify to what he knows and not to his understanding.

A. I must continue my former answer——

Mr. Hamline: I object to your continuing your answer in the shape of stating your understanding; if you know anything you may state it.

Mr. Ayer: Take the answer of the witness and if he objects to it, let it be stricken out.

Mr. Hamline: I think it is proper for the Master to advise the witness that he must give what he knows and not his understanding.

The Master: The witness understands that his statements must be from personal knowledge ordinarily, but in this answer he may say whether he heard anything and not state what he heard.

A. My answer must be a continuation of my former answer.

Mr. Hamline: I object to the witness going on.

A. In the air, and to our knowledge so far as publication was concerned, there was litigation proceeding. Every little while we would hear of some pleading or action in the case, but I have not the slightest knowledge, either from hearsay or otherwise, of anything which would separate that litigation in my mind so as to distinguish the proceedings on the part of the United States from those on the part of the State.

Q. Do you know whether associate counsel were employed or paid out of this fund which was raised in the lake front case?

A. By whom?

Mr. Hamline: You mean the fund raised by Mr. Hibbard?

Q. I mean counsel who appeared in behalf of the State in the original suit brought by the Attorney General against the Illinois Central Railroad Company.

A. I know nothing whatever of any payments made to any person or any employment of any counsel by any person other than that which was generally understood, that Mr. Hamline was acting originally for the property owners in that vicinity, being himself a resident of the vicinity.

Q. Mr. Hamline, as I recollect, did not appear as counsel

Evidence before
Master.

in this pending suit, but General Thompson and a Mr. A. S. Bradley, of the Chicago bar, did appear as counsel on the side of the state at the hearing before Judge Harlan and Judge Blodgett in this case; do you know by whom they were employed or paid?

A. I do not.

Q. And Gen. Edsall, ex-Attorney General, was also employed?

A. I do not know, Mr. Ayer.

Re-direct examination.

Q. This litigation, wherein Mr. Hamline was employed, was this bill that was filed by the Attorney General at the instance of the property owners near 16th street to stop the filling in down there at 16th street, wasn't it?

A. Yes.

Q. And that is all the bill was filed for?

A. That is all, I understood.

Q. And do you know of anybody, any property owner, down there ever paying anything to that fund excepting William G. Hibbard and Jesse Spaulding?

A. No, I have no knowledge.

Q. Don't you know as a matter of fact that Judge Sidney Smith was retained as senior counsel in that case?

A. Now that you speak of it I do remember his having been mentioned, but whether he was employed or not I don't know.

Q. Don't you know, as a matter of fact, that neither Judge Smith or Mr. Hamline had anything to do with this main Lake Front litigation?

A. So far as I know, nothing.

Q. Your home is on the southwest corner of Prairie avenue and 16th street?

A. It is, my present home.

Q. And faces toward the lake?

A. Yes.

Q. You can look right out the windows of your house right over 16th street and Prairie avenue and the lots on the east thereof, and see the waters of Lake Michigan?

A. Every day.

Mr. Hamline: I understand that no objection is made to the copies of maps that we have offered on account of there

being copies—those that we receive from the government, on account of there being copies; is that right, Mr. Ayer?

Mr. Ayer: Yes.

Mr. Hamline: There are references to all the ordinances that I want to refer to, but with Mr. Ayer's permission I will send him over a memorandum of the dates of the ordinances, and if there is any ordinance that isn't in the record I will send him over a copy of it before sending it in to the shorthand reporter. I wish to introduce all the ordinances relating to the harbor of the city of Chicago. I think that finishes our case.

Adjourned subject to agreement of counsel.

3-22-115

April 1, 1895.

Met pursuant to agreement.

Present as before.

DEFENDANT'S EVIDENCE.

JOHN PRINDIVILLE, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. Please state your name, residence and occupation.

A. John Prindiville; residence, 388 North State street; occupation, vessel and insurance agent; vessel owner at one time.

Q. How long have you resided in Chicago?

A. I suppose about 58 years; not quite 59 years yet; 1836 the Prindiville family came here.

Q. Have you, for any portion of that time, actively engaged in the navigation of the lakes and connected with the commerce of the city of Chicago; if so, for how long and in what capacity?

A. I commenced sailing out of Chicago in 1839, cook of a schooner called Hiram Pierson, about the first vessel that was built here; there in that occupation for a couple of years. I was then a sailor, mate and master; master in 1845. I was about 19 years—not quite that at a time; master of the schooner Liberty, made in 1844; she belonged in Milwaukee; and from that time up to '60 or '65 I was master of different

Evidence taken
Master.

Evidence before
Master.

vessels, different rigs, square rig, fore and afters, steamers and tugs. One tug was the McQueen; she was the only tug that was able to bring vessels in here in gales of wind.

Q. When was that?

A. From 1855 up to the time—it was in 1865—about ten years that I was connected with tugs.

Q. When did you cease navigating the lakes?

A. I think it was the year after the fire; I sailed the propeller Adriatic; any way, it was up between 1869 and 1871 or 2; I forget now, really. From 13 years old I followed the lakes up to that time.

Q. What has been your business since 1871?

A. This business that I gave now. I was marine inspector, but still had the same business—vessel and insurance agent.

Q. And you are still now engaged in that business?

A. In the vessel business and insurance business.

Q. Will you state whether or not your business has kept you generally informed as to the character, size, capacity and draft of vessels employed in the commerce of the lakes, and the changes which have been effected in these respects?

A. You mean the draft of water that they draw and the size of the vessels?

Q. Character, size, capacity and draft of the vessels; whether or not you are generally informed?

A. Yes, sir; I am. We would consider a good sized vessel at that time, from—

Mr. Hamline: What time do you mean?

A. I mean from '40; I don't think there was a vessel afloat in '40, I mean '45, there wasn't a vessel afloat, I think, at that time, that carried—from '40 to '45—over 10,000 bushels of grain; that was considered a large vessel; there was more of them that carried 4,000 and 5,000 bushels than 10,000. The other vessels that began to come up, they carried a little more.

Q. What changes, if any, have taken place in respect to the dimensions, capacity and draft of vessels engaged in the commerce of the lakes, vessels arriving at and clearing from the port of Chicago, within your recollection?

A. Well, there was a vessel that came out in 1847 called the brig Bormer; she was the largest vessel on the lakes at that time; she carried 18,000 bushels of corn. Since that, vessels have been increasing in tonnage until now there is vessels that will carry 125,000 and 128,000 bushels of corn.

There are two of them in here now, and they carry more than that, in fact. Evidence before Master.

3-22-116 Q. During the time spoken of, has the aggregate tonnage of vessels engaged in the commerce of the lakes, and arriving at and clearing from the port of Chicago, increased or diminished, and to what extent—the aggregate tonnage?

A. In a proportion?

Q. Yes—whether it has, and to what extent?

A. That has increased three-fourths—two-thirds, certainly. I shall be willing to swear to that; they have increased over two-thirds, the tonnage, from the time I speak of up to the present time.

Q. What do you mean by two-thirds?

A. That it has increased where there was not one-third of the tonnage at that time that there is to-day.

Q. That is there is three times as much, you mean?

A. Three times as much, and I am safe almost to say more, but that is certainly safe.

Q. Will you state whether the number of vessels engaged in commerce during that period has increased or diminished in number and to what extent, during the period that you have spoken of, during which the tonnage of the vessels engaged has increased three fold over what it formerly was; will you state whether the number of vessels has increased during that period, or diminished?

A. The number of vessels has increased, but certainly they have increased one-half if not two-thirds, the number of vessels.

Q. That is the number of vessels is one-half more now than it was then?

Q. Yes.

Mr. Hamline: Since what date?

A. Since the date he speaks of, from 1840 up to 1848.

Q. What has been the tendency during the last ten years in the use and construction of vessels for navigation on the lakes; what kind of vessels are now being built, and what size, whether or larger or smaller than formerly; please state fully your knowledge and experience on this point?

A. One vessel now will carry three cargoes or more of the vessels of those days that I speak of and their draft of water will be almost double what it was at that time on those vessels that were in vogue at that time.

Q. Can you state what the tonnage capacity and the

Evidence before
Master.

draft of water is now of the largest sized vessels that are employed in navigating the lakes that enter the port of Chicago?

A. Well, the tonnage now, take the whole tonnage, I think will average over 2,000 tons, and the draft of water not less than, the vessels that we have now, not less than 16, or at least 17 feet of water, and if they could go through drawing 20, they would load the vessels to 20 feet of water.

Q. What has constituted and still constitutes the harbor of the city of Chicago for commercial purposes?

A. The Chicago river.

Q. Approximately, what is the number of miles of wharfrage on the two sides of the Chicago river and its branches, within the limits of the city of Chicago?

A. About 24 miles, I should call it.

Q. At what points are there tunnels under the Chicago river or its branches, and about when were they constructed?

A. Washington street tunnel was the first, but I couldn't really remember when it was constructed; I know I was here; and La Salle was the next.

Q. You don't remember when they were constructed, the year?

A. No, I don't, it must have been between 1865 and 1870 they were constructed; La Salle street tunnel was constructed—no, I don't think it was more than a couple of years old when they were fleeing from the fire through it. Washington street tunnel was constructed a couple of years, 3 or 4 years before that, but I couldn't give you the exact date or year.

Q. State, if you know, what is the depth of water over those tunnels at ordinary stages?

A. Ordinary stages of water, about 15 feet and a half over La Salle now; Washington street tunnel has been lowered and there are about 16 feet of water at Washington street, and may be a little more.

Q. At ordinary stages?

A. At ordinary stages. To-day the water in the creek here is about—certainly a foot higher than it was here the middle of the last week when the wind was from the southwest; there is a rise and fall here that depends on the winds, but in ordinary stages that is about the depth of water.

3-22-117 Q. Have these tunnels, to your knowledge, at any time, interfered with the passage of vessels up or down the river, if so, when and for what reason?

A. Many a time, sir; since they were built vessels grounded on the tunnels and they had to load the vessels—they couldn't load the vessels above the tunnels on account of the tunnels——

Evidence before
Master.

Q. That is, they couldn't load them to their full capacity?

A. To their full capacity.

Q. What is the depth of water at ordinary stages in the channel along and over what are known as the St. Clair Flats, and is that a natural or an artificial channel?

A. The channel on the St. Clair Flats is artificial; they have built piers there and the depth of the water through there is about 19 feet, but they are dredging a channel now giving 20 feet of water across Lake St. Clair.

Q. State whether there are any causes which operate to change the depth of water in the Chicago river and along the shore of Lake Michigan in front of the city of Chicago, from time to time, during the season of navigation; if so, what are those causes, and what is the extent of those changes?

A. Before the breakwater was built, the breakwater north of the harbor, the outside breakwater, there was always—— You mean the breakwater at the northeast of the mouth of the river?

Q. Northeast of the mouth of the river?

Mr. Hamline: Out near the crib.

A. Out near the crib, the outer breakwater; before that breakwater was built the channel used to fill up every year with sand from the lake around the piers and harbor.

Q. Are there any other causes which affect the depth of water?

A. Well, the river had to be dredged several times by filling up from heavy rains on the prairie, but that don't interfere with navigation, because——

Q. I understood you to say just now that the depth of water varied in the Chicago river from time to time?

A. Yes, sir.

Q. What is the cause of those variations?

A. It is the wind from the southwest blowing the water down the lake, and the wind from the northeast raising it, raising the water. The change of winds makes a difference from a foot to 18 inches of water. It depends on how heavy the wind is.

Q. What is the depth of water in the channel of the Chicago river east of the La Salle street tunnel at ordinary stages, and when the level of the water in the lake is not disturbed by unusual causes?

Evidence before
Master.

A. From 17 to 18 feet of water.

Q. What effect, if any, will a strong wind from the south or southwest have upon this ordinary depth of water in the Chicago river and vicinity?

A. Almost a foot lower.

Q. Having reference to the manner in which commerce in vessels is conducted on the lakes, and especially at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of that commerce?

Mr. Hamline: I object to the question on the ground that it is a conclusion of law, and what we want are the facts. And second, as to the time not being located.

A. Eighteen feet, about.

Q. Are you advised of the tonnage of vessels now being built for commerce on the lakes, if so, what is that tonnage and what must be the depth of water necessary to float such vessels when loaded?

Mr. Hamline: Objected to as being incompetent, immaterial and irrelevant.

A. The depth of water to float those vessels would be not less than 18 feet of water that they would require when loaded; not only that they would load to more than that if there was more water, those vessels they are building now.

Q. Can you state what size those vessels are?

A. The vessels' capacity of carrying would be about—

Q. How many tons?

A. Some of them will carry 4,500 tons.

Q. Have you a general knowledge of the location of the piers and slips constructed by the Illinois Central Railroad Company between Randolph street extended east 3-22-118 and the Chicago river, also the pier between 12th 13th streets south of Park Row and the piers and slips constructed by the Illinois Central Company in the waters of Lake Michigan, reaching down to about the north line of 16th street extended east?

A. Yes.

Q. Do you know the depth of the water at the outer ends or sides of these several constructions?

A. I don't know exactly, but I call it 13 feet; a vessel drawing over 13 feet of water can't go into the inside harbor.

Mr. Hamline: I object to the answer as not responsive to the question, and a conclusion instead of a statement of fact.

A. There is a portion of that that is 9 feet of water; that is along up towards the pier there that is built out at Park Row.

Evidence before
Master.

Q. You mean the 13th street pier, so called?

A. The 13th street pier.

Q. Assuming that the depth of water at the outer ends and sides of those structures does not, in any case, exceed 14 or 15 feet in the ordinary stages of water, do they, or any of them, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is now transacted?

Mr. Hamline: Objected to, as there is no evidence upon which the assumption is based, calling for a conclusion of law and not a statement of fact, irrelevant and as being subsequent to time suit was started.

A. No.

Q. If you, as a riparian owner on Lake Michigan, in the city of Chicago, or its immediate vicinity, were to construct a pier or wharf for the accommodation of lake commerce, having in mind the manner in which that commerce is now conducted, what would be the depth of water you would consider it necessary to reach in order that your pier or wharf should be available for the uses intended?

Mr. Hamline: Object to his opinion, as immaterial and irrelevant, so far as it relates to time subsequent to beginning of this suit.

A. 18 feet; not less than that.

Q. Assuming that the space in the waters of Lake Michigan partially enclosed by the government breakwater on the south of the outlet of the Chicago river will, or may be, used as a part of the Chicago harbor for commercial purposes, what depth of water, in your opinion as a practical man connected with the commerce of the lakes at Chicago, should the space thus partially enclosed have, in order to accommodate the important commercial interests of the city connected with the navigation of the great lakes?

Mr. Hamline: Object to the assumption and also for the calling of a witness to give an opinion, immaterial and irrelevant, as relating to a time subsequent to beginning of this suit.

A. They are trying to get a channel a depth of 20 feet of water, but at present it would require 18 feet of water for any of those vessels to load fully with the capacity they could go through the lakes with.

Evidence before
Master.

Q. Do you know the depth of water, on the average, in the basin partially enclosed by the government breakwater south of the Chicago river? If you have personal knowledge of the matter, please state whether the depth of water your name is uniform over the whole area?

Mr. Hamline: Objected to, as it doesn't specify what portion of the area of the basin.

Q. State, if you know, what the depth of the water is within this basin, the outer harbor, so called, if you have personal knowledge of the matter, and then state if the depth is uniform all over it.

Mr. Hamline: As the basin is a couple of miles long and a mile wide, it is indefinite.

A. The depth is not uniform. At the end of those piers I should call it 13 feet of water and along the frontage there from Randolph street south there isn't over 7 feet and 8 feet of water.

Mr. Hamline: I move the answer be stricken out because the witness hasn't shown, when, where and how he acquired his information of the depth of water.

3-22-119 Q. Have you had any personal experience with the capacity of the space thus partially enclosed and called an outer harbor, or the harbor of refuge, in connection with the vessel commerce of the lakes; if so, state what that experience was.

A. Well, I can generally tell about what the space would be, what the condition would be from the amount of tonnage, it wouldn't begin to accommodate half the tonnage on the lakes inside there, nor it wouldn't nor it wouldn't one quarter of the tonnage.

Q. Is the water deep enough to accommodate it?

A. No, sir, there isn't water to take any vessel drawing over 13 feet of water, unless it is the result of wind from the north; as I said before, that it made a difference of the depth of water.

Q. Are you familiar with what was called the north and south piers of the Chicago river?

A. Yes.

Q. Does your actual recollection reach back to the time when vessels engaged in the commerce of the lakes, in order to reach the harbor of Chicago, were compelled to sail around a sand bar as far south as Jackson or Van Buren streets, and thence northwest into the Chicago river?

A. Yes.

Q. Is it or not the fact that the government breakwater is located on that sand-bar?

Evidence held
Master.

A. Yes.

Q. Was there any difficulty in navigating that channel and if so, for what reason, that old channel that the vessels were obliged to take down below Van Buren street and thence northwest into the Chicago river, if so, for what reason?

A. The difficulty was in going around there and coming up inside that bar, there was a breaking sea all the way in to the shore, and it was a bad channel, and the wind from the north, a dangerous channel.

Q. In the opening of the direct channel of the Chicago river into Lake Michigan, was not the structure known as the south pier extended across the channel previously used by the navigators for their return around the sand-bar, in order to reach the Chicago river? Whether or not the south pier was extended across the old channel?

A. There was one old channel, now there is two channels. There was one channel before the piers were built at all that came in about where—and afterwards when the piers were thrown out there the other channel was inside the breakwater. The south pier was extended across that channel of course.

Q. Go back prior to 1870, perhaps 1865, when vessels bound for Chicago were obliged to run south about as far south as Van Buren street in order to get around the sand-bar, and then run northwest after having rounded the sand-bar, northwest to the river. Now, I want to know whether the channel which the vessels used to follow after they rounded the sand-bar, running towards the river, has not been since intersected and crossed by the east extension of the south pier?

A. Yes.

Q. By whom, and at whose expense and under whose direction was that south pier extended?

Mr. Hamline: I object.

A. By the government, I suppose.

Mr. Hamline: I move that the answer be stricken out.

A. Under their direction.

Q. Did not the United States, represented by its engineer in charge of harbor construction at Chicago, close up that channel by the extension of the south pier to the Chicago river?

Evidence before
Master.

Mr. Hamline: Objected to as leading, and the witness has not stated that he has any information of his own knowledge as to who closed it.

Mr. Ayer: I will change that to read "did he or not."

A. He did.

Q. State whether or not the south pier of the Chicago river now extends across and effectually obstructs the old channel referred to?

A. The old channel? The south pier extends across it; it blocked the channel up.

Q. Doesn't the south pier of the Chicago river extend beyond the outer ends of the piers of the Illinois Central Railroad Company, 1, 2 and 3, and if so, to what distance?

Mr. Hamline: Objected to unless he knows.

A. They extend outside of the pier.

Q. Which extends?

A. The pier extends outside the Illinois Central slips well, I should think about 150 feet, that is to the opening. The south pier then commences outside this opening and extends away out to the breakwater.

Q. Then there is an open space left in the south pier?

A. There is an open space left in the south pier, but the pier is carried out from that open space; the inner portion I should think was about 150 feet outside of the end of the Illinois Central piers.

Q. Has the State of Illinois or the City of Chicago ever built, or to your knowledge proposed to build any pier, dock or wharf connected with the frontage of the city on Lake Michigan, for commercial purposes between Randolph street and Park Row or 12th street?

Mr. Hamline: Object to the opinion of the witness in regard to what the State of Illinois or the City of Chicago proposed to do; object to the witness trying to swear to and prove a negative.

Mr. Ayer: He can state what his knowledge is.

A. I never heard of their proposing to build any outside docks for commercial purposes.

Q. And has any such dock ever been built by the State or city?

A. No, sir; not that I am aware of. If it was built I should know it.

Q. To what use is the ground east of Michigan avenue

and between Randolph street and Park Row now devoted; how is it occupied?

Evidence before
Master.

A. It is a public park I suppose.

Q. Not all of it, is it?

A. From Randolph street north——

Q. South to Park Row?

A. From Randolph street south to Park Row? Well, it is occupied by the armory and by the Art Gallery and other buildings there from Randolph to Van Buren, almost, or Randolph to Monroe.

Q. How is the rest of it occupied?

A. From there to Park Row, I should consider a public park.

Q. Has there been, to your knowledge, any attempt, on the part either of the State of Illinois or the city of Chicago, to improve the space within the government breakwater, south of the Chicago river, for uses as a commercial harbor?

A. No.

Q. How far beyond the government breakwater last referred to does the north pier of the Chicago river extend into the lake?

A. Extends beyond that at least 150 feet or 200 feet.

Q. Is there, or is there not, a breakwater, constructed by the United States government, to the north and east of the north pier of the Chicago river? If so, state its length and general direction.

A. Yes.

Q. In the lake outside of the river, and to the north and east of the river?

A. Yes, east of the river, running northwest and southeast.

Q. What is its length?

A. Its length is fully a half or three-quarters of a mile; about three-quarters of a mile, I should call it.

Q. What advantages are furnished to the vessel commerce of the city of Chicago by this latter breakwater?

A. Making a safe entrance to the harbor, doing away with the sea; it used to be a breaking sea over the piers, where it wasn't safe to enter in a gale of wind from the north; now this pier makes smooth water at the entrance to the harbor; and there is a lea inside the pier, and anchorage for vessels; a harbor where vessels can come to there in heavy weather.

Q. Doesn't the pier furnish there a shelter for vessels in

Evidence before
Master.

case of violent weather; violent winds from the north and northeast?

A. Yes, that is the breakwater, we call it.

Q. If a vessel were coming into Chicago under a heavy wind from the north or northwest, what course would it naturally take, after rounding the east end of the north pier, to reach a place of safety?

A. Go right up the river.

Q. You know the location and size and construction of the 13th street pier, so called, do you not, built by the Illinois Central Railroad Company, at the south end of the outer harbor?

A. Yes.

3-22-121 Q. What purpose does that serve, in connection with the harbor?

A. It serves to make a harbor; it improves the harbor, because it breaks off the southeast sea, and before that pier was run out there nothing could lay there hardly in the harbor of refuge, as they call it, when the wind was from the east, blowing heavy, or from the southeast; they all have to go around into the river for safety; this pier running out there breaks off the heavy southeast sea, and makes the harbor for yachts and other excursion boats; it makes the harbor safe to what it would be without.

Q. What is the length of the outer harbor from north to south, say from the river to 13th street; about what length?

Mr. Hamline: Objected to unless he knows. Object to his swearing as to distances.

A. That is very easy to get at; 12th street is a mile from Madison; it would be about, I should call it from the river to 13th street, very near two miles; a mile and a half.

Q. Very near a mile and a half?

A. Yes, about a mile and a half.

Q. Will you state whether it is practicable for vessels engaged in the commerce of the lake to moor, load and unload at the 13th street pier, and if not, why not?

Mr. Hamline: Object to the testimony of the witness, because he hasn't shown his familiarity with the depth of water.

Q. Supposing the depth of water to be sufficient.

A. They would get considerable sea there on the north side of the pier; they would lay very uncertain there on the north side of the 13th street pier.

Q. Suppose a series, however, of docks and intervening slips were constructed between that pier and Randolph

street, then state whether those slips would or would not furnish suitable accommodation for vessels, if the depth of the water was sufficient?

Evidence before
Master.

Mr. Hamline: Objected to, as there is no evidence that anybody has got any authority to erect a series of slips between 13th street and Randolph street.

A. Certainly it would.

Q. Would you, as a vessel owner, or one engaged in the practical navigation, consider it safe to use the north side of 13th street pier under present conditions for mooring your vessels?

A. Mooring them along side of the pier?

Q. Yes, on the north side?

A. Well, sir, in a heavy norther, I shouldn't want my vessel to lay there at all; I shouldn't consider her safe to be laying there; she would be badly used up in a heavy gale of wind from the north, because there is quite a chop of the sea comes down there against that pier with a heavy gale of wind from the north.

Cross-examination by Mr. Hamline.

Q. Then the 13th street dock, on account of its exposed northerly condition, is of no value for dock purposes for vessels to tie up to in case of storm?

A. It depends on where the storm is from.

Q. From the north?

A. From the north; well, there is quite a chop of the sea there, it is a short chop of a sea; take one of those great big vessels it would have no effect, but take those excursion boats and small vessels and she would lay very uneasy along side the pier, but one of those big vessels, 300 feet long, would hardly make a move.

Q. I suppose the same is true as regards the use of that dock for navigation purposes, if a vessel should lay up on the south side of the pier in case of a storm from the south?

A. I think it is closed in on the south.

Q. On the south side of the 13th street dock? It goes away out into the lake and there is open sea room south of it.

A. South of part of it. I think there is a space running north and south that makes— keeps the bad weather from coming from the south. I think it makes smooth water there and makes it perfectly safe.

Q. Don't you know, as a matter of fact, that the 13th

Evidence before
Master.

street dock projects out into the lake for 600 or 800 feet, with nothing south of it at all but water?

A. Yes, it was so, and is now, in fact.

3-22-122 Q. Now a vessel lying up on the south of this dock would be exposed to the full fury of the southern storms?

A. Of the southeast wind, yes, sir.

Q. Now, how long since you went down on the 13th street dock?

A. I was down there a year ago, went out to the end of it at that time.

Q. Did you take any measurements?

A. No, I did not.

Q. Did you ever take any measurements of the water off that dock of the depth of the water?

A. Yes, I did.

Q. Since it has been built?

A. Yes, many a time coming in and out of there with the yachts and in the excursion boats.

Q. Have you got any record of those measurements?

A. No, sir. I will tell you what the depth of water was there; the deepest water there was about 13 feet.

Q. When was that? When was it you found it was 13 feet, what year?

A. Three or four different years; inside of ten years.

Q. What year was it?

A. Name any year that you please for the last four or five years.

Q. Did you take any measurements off that dock in the year 1895?

A. No, sir.

Q. Take any measurements off that dock in the year 1894?

A. I tried to get a vessel in there and that was drawing 14 feet of water, and I had to take her out of there and take her back into the river.

Q. Did you take any measurements?

A. Well, that is measurement enough.

Q. Did you take measurements?

A. That is a measurement; she grounded there drawing 13 feet of water. No, I didn't take any measurements otherwise, but this vessel, I wanted her in there, and other vessels was to follow her in there and wasn't water enough to take them in; the river was crowded with vessels and we wanted to get some of them in this outer harbor and couldn't on ac-

count of the water. Tried each gap, the center one running due east from Van Buren street there all she got inside was her length and fetched up and we couldn't get her out of the way of the sea; if it happened to come on to blow and we had to pull her back out and take her back into the river; that is the only way I can tell about the depth.

Q. That is all you know about it?

A. That is all I know, and that is enough.

Q. You never have taken any measurements of the depth of water down at 16th street, have you?

A. Not only sailed along there. I considered myself perfectly safe running along this shore and inside clear down to Cheltenham beach; I think was the first one that ever found a channel there and took the first vessel through there inside the shoals of Morgan's reef and down by Hyde Park.

Q. Then down by 16th street you found deep water?

A. Off from 16th street about 500 or 600 feet or 1,000 feet there is, must be certainly 18 feet of water or more.

Q. As a matter of fact the current washes in and strikes the shore about 16th street, and all that coast along there is fairly deep water, is it not?

A. It is deep water for light draft vessels; don't think there is any 15 feet of water within 200 feet of there.

Q. You don't think so?

A. No, sir.

Q. Now, as a matter of fact, you never measured it, did you?

A. Only by sailing back and forth by there. Yes, I sounded that channel from end to end.

Q. When?

A. For the first crib that ever was put out there.

Q. What year was that?

A. That was in 1856 or 7.

Q. You don't know anything about the depth of that water down there in 1885, do you, at 16th street?

A. No, I don't; only I always thought there was about the same water and about the depth of water that I know was there before.

Q. The basin you have spoken of hasn't been occupied by docks between Randolph street and Park Row, has it?

A. Only a dock right along the edge.

1-22-123 Q. Along the edge of the Illinois Central tracks?

A. Yes, sir.

Evidence bef
Master.

Evidence before
Master.

Q. Don't you know, as a matter of fact, that the State of Illinois and the Illinois Central Railroad Company have been having a law suit over the land under the water that is in that build any docks, isn't it?

A. I heard they were at logger heads.

Q. Went up to the Supreme Court of the United States?

A. I couldn't say where it went to.

Q. And during that time nobody else built any docks, did they?

A. Outside this present dock?

Q. In this basin outside the Illinois Central dock?

A. Not that I heard of or seen.

Q. That is a pretty good reason why the State didn't build any docks, isn't it?

A. Why?

Q. The Illinois Central claiming all that land and they having a law suit over it, wasn't that a good reason?

A. If they claim it. I didn't know any thing about what their reasons are, or what their claims are.

Q. Now then, this basin, however, has been used as a harbor of refuge, has it not?

A. It has been used very little for a harbor; it is a harbor for light vessels that went out here and came back wind bound to run inside for safety, but no heavy vessels I never seen coming in there.

Q. You recollect that big storm that took place here last summer?

A. Yes.

Q. Biggest storm we had for years, wasn't it?

A. It was a heavy storm.

Q. Don't you recollect that basin was filled up with vessels that run in from the fury of the storm, during that storm?

A. No, I don't recollect.

Q. Were you down on the lake front that day?

A. I was down on the lake front that day, and north of the pier, also.

Q. You didn't see any vessels in there?

A. Oh, yes, I did.

Q. Good many of them, weren't there?

A. Those vessels that I speak of, small vessels and light vessels; not heavy loaded vessels, not big vessels.

Q. What do you call a big vessel?

A. One that will carry about 60,000 or 70,000 bushels of grain, 50,000.

Q. How much tonnage is that?

A. Well, the tonnage would be about—a vessel carrying 50,000 bushels of grain, about 1,200 tons, and so on, according to the amount they carried.

Q. How much did you say a bushel of corn weighed?

A. A bushel of corn weighs 56 pounds, a bushel of wheat 60; barley weighs 48, oats 32 pounds to the bushel.

Q. You call a boat that will carry 50,000 bushels of wheat or corn a big boat?

A. No, sir, she is not called a big—well, no, she is called a small vessel.

Q. Will you tell me what you call a big vessel?

A. One that will carry about from 122,000 bushels of wheat to 130,000 bushels.

Q. You call that a big vessel?

A. Yes, sir, very big vessel. 100,000 I call a big vessel.

Q. How much tonnage does a vessel that carries 100,000 bushels take?

A. She may ton, oh, 17 or 18 hundred tons; carry generally one-third more than their tonnage.

Q. How much is the draft of a vessel say, 1,800 tons?

A. If it is a vessel with a full cargo, she will draw 15 1-2 or 16 feet of water. Draw just as much as a vessel that will carry one-third more, but that wouldn't be her capacity, her draft of water.

Q. You call a boat that draws 15 1-2 or 16 feet of water a big boat?

A. 15 1-2 to 16 feet, that isn't the draft of water of a vessel; if there was water enough those vessels would load to 18 and 20.

Q. You have said that you called a big boat a boat that would take 100,000 bushels of corn?

A. Yes.

Q. You said that would be about 1,800 tons?

A. No, I didn't say anything of the kind.

Q. How many tons would that be?

A. About 1,500 tons.

Q. And a 1,500 ton boat would draw 15 1-2 to 16 feet of water?

A. Yes, sir.

3:22-124 Q. Then that is a big boat, isn't it?

A. Well, that is—no, she is not; I wouldn't call her a big boat.

Q. What do you call a big boat?

Evidence before
Master.

A. One that you can load——

Q. No, give me the size.

A. Say a vessel that will carry 3,000 tons; a vessel that will carry 112 to 120 thousand bushels of grain.

Q. What would be the tonnage of such a boat?

A. About 1,800 tons.

Q. And about what draft of water would an 1,800 ton boat take?

A. They would load her down to 16 feet of water. They would load her to the water that she could get in and out with; they couldn't load the other vessels, those larger vessels, to no more than that same water, because there is no more water; that is the reason.

Q. How much draft of water would an 1,800 ton boat take?

A. An 1,800 ton boat will draw—they will load her down to 15 or 16 feet of water; 15 1-2 to 16 feet, I would say; they would load that same boat down—she may carry 8 or 10 tons more, and they will load her down to a foot or six inches or more with more water; it depends on the water.

Q. Suppose you had plenty of water, how much draft does an 1,800 ton boat take?

A. She will carry her full cargo; I suppose 15 1-2 or 16 feet of water.

Q. That is a big boat, isn't it?

A. No, it is not.

Q. Well, tell me what a big boat is.

A. Those vessels that they are building, and those vessels that we have here, the majority of them in the creek here; they will carry from 112 to 128 and 30 thousand bushels of grain.

Q. Then a boat that will carry 112 to 128 thousand bushels of grain is a big boat?

A. Yes, sir.

Q. How much tonnage is that, about?

A. Eighteen or 19 hundred, about.

Q. How much draft will an 1,800 ton boat take? How much depth of water will those 1,800 or 1,900 ton boats you speak of take?

A. She can't carry a full load on the water we have; she has got to load according to the water.

Q. Suppose you had any amount of water, how much water will she take?

A. If she had plenty of water she would take at least 18 or 19 feet.

Q. Now, then, there are no boats that go up the Chicago river beyond La Salle street, taking more than 16 feet of water, are there?

A. Wouldn't be safe for them to load to any more to get over the tunnels.

Q. And that has been the case ever since 1869, when the LaSalle street tunnel was built?

A. To get over the tunnels they wouldn't load them full up, finish generally below the tunnel.

Q. And prior to 1885 and 1886 when the Washington street tunnel was lowered, there was about a foot less water over the Washington street tunnel than there was over the LaSalle, was there not?

A. Very near that.

Q. So that when a vessel drawing 16 feet of water got up beyond LaSalle street tunnel she couldn't get above the Washington street tunnel because that was still shallower?

A. She couldn't unless she lited, or waited for a change of wind.

Q. Now, when did you take any measurements of the Illinois Central docks up there near the mouth of the river, since they were built?

A. I didn't take any measurements there for, well, in fact I never sounded there, I went right in there. The way I know the water is—the way I found out the depth of water there is those vessels that we tried to get into this harbor, we couldn't get them there because there wasn't water enough.

Q. Into what harbor?

A. Wasn't over 13 feet of water in there, get inside the breakwater to any of the docks there. Not only that along Randolph street viaduct there and south to 13th street, there isn't eight feet of water.

Q. When did you measure along there?

A. I measured there——

Q. When did you sound there?

A. I sounded there with a chart for the South Shore Transportation Company, when I was manager.

3-22-125 Q. When was that?

A. Year ago last summer; water was the same last year and has been for years.

Q. You took soundings, did you?

A. Soundings, yes.

Q. How far east of the Illinois Central breakwater did

Evidence before
Master.

you sound out in the lake, at Madison street? Illinois Central tracks?

A. I was going to tell you the soundings that I had was the boats that was running there that grounded at the—lay outside of the breakwater, and when they backed off 100 feet, there must have been more water there.

Q. That is all you know about it?

A. Yes, sir; and when this pier was built out there for the World's Fair, they had to dredge there; there was only eight feet half the way out to the pier there at the time.

Q. Did your boats that you speak of run farther north up towards Randolph street than Van Buren street?

A. Yes, sir.

Q. How far?

A. They run up to the docks there at Randolph street.

Mr. Ayer: What docks?

A. I mean the viaduct.

Q. The Illinois Central pier?

A. I mean the Illinois Central. The Randolph street viaduct running out east into the lake.

Q. Your boats ran up there?

A. The small boats, the Lincoln Park boats started from there part of the time.

Q. You didn't touch out any farther east along those docks, did you, east of the viaduct?

A. From Randolph street viaduct?

Q. Yes.

A. Yes, sir.

Q. Whereabouts?

A. Out at the end of the piers there where this vessel grounded when she couldn't come in there.

Q. Aside from that, have you ever made any soundings down there?

A. No, I did not.

Q. Not since the government breakwater was built?

A. No, sir.

Q. I believe you stated that there was a tendency for the sand to be washed in with a northwest gale or northeast gales and fill up the mouth of the river?

A. That was before the breakwater was built, outside breakwater.

Q. Outside breakwater has stopped that, has it not?

A. It stopped it abreast of the breakwater, but there is an

opening all the way down there where it comes right in and fills up.

Evidence before
Master.

Q. In other words, immediately south of anything projecting out into the lake, there is no accumulation, is there?

A. Where?

Q. Anywhere on the lake shore. You stick a breakwater out in the lake and the deposit of sand from the north is stopped, is it not?

A. It is stopped some, but there is an opening there where the sea comes down and fills in there by Chicago avenue, and all the way down where this Peshtigo Lumber Company—

Q. Take it where the river comes out; there is the north pier on the north side of it, there is the south pier on the south side of it projects out not so far, and then there is the government breakwater running north and south; now, is there any wash of sand up there?

A. I couldn't tell you; I haven't been running there myself.

Q. Do you think there is?

A. I think there is very little, if any, compared with what it was before, but it ought to wash away in place of accumulating there south of the piers. When they commenced building piers out here it washed away Michigan avenue; there wasn't a foot of land outside there in ten years after they first commenced building; it washed away part of the street before this Illinois Central track was run along the shore.

Q. Just as I supposed, south of where you put out a pier, instead of there being an accumulation there is generally a deepening or washing away?

A. Yes, sir; all this west shore; a man that will be south of the pier that I will build out here off Chicago avenue a thousand feet, if it is on the south end of my land it will fill up north, make land for me, and the man south of that pier will suffer.

Q. He will lose land?

A. Yes, sir.

Q. You know the location of the Illinois Central docks up there at Randolph street?

A. Yes, sir.

Q. You bear them in mind?

A. Yes.

Q. Now, as a matter of fact, do they not lie right across that old channel that the boats used

Evidence before
Master.

to use when they could come south around the south buoy opposite Madison street and then sail up northwest and into the Chicago river?

A. You mean whether the breakwater was built; not the first channel?

Q. Yes, they lay right across that, don't they?

A. No, sir, they do not; they don't extend out any further.

Q. They don't extend out to where that channel went into the river?

A. About where that opening is now was as far west as we used to come to go in here after rounding Van Buren street.

Q. And yet the south breakwater does lay right across it?

A. What south breakwater?

Q. You told Mr. Ayer, in response to his question, that the south pier right across that channel.

A. The south pier across the old channel, the channel of the river; but the south pier crossed it outside of where those end of docks are, outside of where the end of the slips are.

Q. The south pier runs out about 150 feet, you said, beyond the slips?

A. That is guess work; I think that is what I shall say it now.

Q. Then it is in that 150 feet where that old channel used to be?

A. Yes. Well, the old channel, the first channel, used to be way inside altogether, where Goodrich's office is; right where the tracks is now, the Illinois Central track, the old channel, that is where the bar run along there; that is before the piers were built.

Q. Have you ever taken any soundings, with the exception of your boat running aground there a year ago, anywhere south of the south pier, since the year 1869? Made any actual soundings?

A. I don't know what year that crib was put out there; the first crib.

Q. The waterworks crib?

A. Yes. I placed that crib there in a boat I was in; I spent for the city nine days sounding from Gross Point to Hyde Park to see where to place this crib.

Q. That was about 1867, I think, or 1868?

A. Couple of years, I guess; must have been 1869, I think. Evidence before Master.

Q. Since that time you have made no soundings yourself?

A. No.

Mr. Ayer: You mean the first tunnel crib?

A. The first tunnel crib, it was east of the breakwater.

Mr. Ayer: I drew the contract for the construction of the original tunnel and that was when I was Corporation Counsel under Mayor Sherman in 1863 and 4, somewhere along there.

A. That was about that time.

Q. It was about 1865, I guess.

A. I took that crib, it was built there in the Peshtigo slip and channel in there and brought it out to where it stands now. No, I didn't make actual soundings lately out there.

Q. How do you know, of your own knowledge, that the government built the south pier beyond the Illinois Central slips?

A. The only knowledge is that they built all the piers there, the harbor piers.

Q. How do you know they built the last one, this extension, you don't know, as a matter of fact?

A. No, I don't know for certain. The breakwater, I know the government built it, both breakwaters.

Q. That was way back what time?

A. Well, it must have been, I don't know; it must have been—I couldn't tell you the year, between 1870 and 1880, about that time.

Q. You have told us the carrying capacity of the big boats, now what is the carrying capacity of the big lumber boats?

A. The big lumber boats now?

Q. Yes.

A. Some of them carries over a million feet of lumber.

Q. What is the average?

A. The average of the whole lumber fleet?

Q. Yes.

A. The average would be, of the whole lumber fleet, would be about, I should call it about 300,000 feet of lumber.

Q. Do you know how much tonnage that takes?

Evidence before
Master.

A. No, I do not; it don't consume one-third of the tonnage of the lakes, by any means.

Q. Do you know how many vessels there are engaged in the lumber trade in the Chicago harbor, compared with the vessels of all kinds that come into Chicago harbor, the number?

A. Well, perhaps one-quarter.

3-22-127 Q. One-quarter of all the vessels that come in?

A. That comes into Chicago harbor; not over that, there may not be that.

Q. As a matter of fact, do the lumber boats make much shorter trips than the grain boats and get into the harbor more frequently?

A. Some of them do, small vessels running across the lake.

Q. Running up in the grain business——

A. Those vessels makes a round trip from here to Buffalo in 10 or 12 days, in less than that; consider 10 days a quick trip to Georgiana bay for a sailing vessel.

Q. Of the sailing vessels that come into Chicago harbor, what proportion of them are lumber vessels?

A. It is very small, I couldn't tell you.

Q. Very small?

A. Very small portion.

Q. Of the total number of sailing vessels that come into the Chicago harbor, what proportion of them are engaged in lumber?

A. Well, I should think about, of the sailing vessels that come into the Chicago harbor, about, certainly one-third, very near, of the lumber fleet, I mean. Sailing vessels are getting out of date very fast and they are behind some barge or steamer all the time.

Q. Has the size of the lumber boats increased materially in the last twenty years?

A. Oh, yes, they have, fully one-third, perhaps.

Q. One-third in size?

A. Of the tonnage, of the size, yes.

Q. You have looked at the statistics of vessels lately, have you, to familiarize yourself with how many vessels that enter the Chicago harbor and clear are engaged in lumber and how many in other kinds of business?

A. No, I have not, but it is very easy to get at it.

Q. Captain Dunham is pretty familiar with those things, isn't he?

A. Yes, and you will find men here too, that is as familiar as he is that is in the business.

Q. Captain Dunham is about as familiar as anybody, is he not?

A. Yes, I suppose he is. There are men here you will find are more familiar with them.

Q. What makes you think so?

A. Because they are attending to business all the time and they are in the same business as Mr. Dunham is, and Mr. Dunham is perhaps off very often half his time perhaps, and maybe he don't pay the attention that the other parties will.

Q. Maybe he does?

A. And maybe he does, yes.

Q. Mr. Ayer read off from a lot of paper questions to you; had he ever read those questions to you before?

A. No, sir; he never did.

Q. Do you know how far you have got to go out in the lake opposite Randolph street to get to 18 feet of water?

A. You can get it a mile outside of the pier, or less. You can't get it inside the breakwater; you can get it a short distance outside of it, of the harbor of refuge. You can go out in the lake perhaps, well, a mile from Randolph street and get it, that is, outside of the breakwater.

Q. Then, if you were building a dock to-day to accommodate these boats you speak of, and you were permitted to, you would build the dock out a mile to get to 18 feet of water?

A. If I built a dock abreast of Randolph street due east from Randolph street, no, I wouldn't, because I shouldn't certainly commence it inside the breakwater; I should commence it outside of it.

Q. You would have to run out about a mile to get 18 feet?

A. No, sir; not a quarter a mile, not over that, to get 18 feet of water, nor an eighth of a mile.

Q. Beyond the outside breakwater?

A. Beyond the outside breakwater.

Q. Supposing you were running it from the shore?

A. There is a breakwater that is outside of Randolph street running north and south.

Q. Supposing there were no docks there at all, no government breakwater there, in order to get out to what you call practically navigable water, 18 feet, you would have to

Evidence before
Master.

run her out from Randolph street about a mile, wouldn't you?

A. Not quite; dock would be no use to me if there was no breakwater there, that is inside.

Q. In order to get to navigable water you would have to run her out about a mile?

A. No.

3-22-128 Q. Why not?

A. To get 18 feet of water?

Q. Yes.

A. Yes, about three-quarters of a mile, just outside of the breakwater two or three hundred feet.

Q. Now, supposing you were running a dock from 13th street there, how far east into the lake would you have to run it to get 18 feet of water, from Park row?

A. About half a mile, not more than that.

Q. How far out is the government breakwater at that point?

A. From where?

Q. Park row.

A. I should think it would be about, as near as I could place it there, about, well, a quarter of a mile.

Q. How far out does the Illinois Central dock extend at 13th street?

A. I couldn't tell you.

Q. Don't extend a quarter of a mile?

A. No, sir, it doesn't.

Q. As a matter of fact, Captain Prindiville, you have been engaged on shore for the last twenty years, have you not, rather than on the water?

A. Yes, on the shore and on the water, too. I have done a good deal of sailing in the last twenty years.

Q. You have been sailing for pleasure?

A. Yes, sir.

Q. A small yacht?

A. Yes.

Q. Generally walked off with the prizes?

A. Yes. I have one east that draws considerable water.

Q. You retired from practical navigation twenty years ago?

A. Yes, sir; over that.

Q. You speak about the water changing—the depth of the water changing in the Chicago river and immediately outside?

A. Yes.

Q. As I understand it from your testimony, when you have a wind from the northeast, it tends to pile up the water in the south end of Lake Michigan, on the west shore, and on the contrary, when you have a wind from the southeast and off shore, it tends to draw the water away from the west shore?

A. Yes.

Q. So that if a man would go down there to-day, with the wind from the northeast, he would find the water considerably deeper, that is, some deeper, than if he had gone down there any day during the last two weeks when the wind has been from the southwest?

A. Find the water deeper, yes.

Q. We have been having a southwest wind, you know, and for the last two weeks, and the water would be by that wind drawn off shore and made shallower, but to-day it would be piled up and made deeper by this northeast wind; that right?

A. Yes, sir; would be a difference in the depth of water in the river and on the shore.

Q. The water is always deeper in the navigable season, is it not, that is between say May and November, than it is during the winter season?

A. Well, we have better—generally have better water in between those months than we do in the spring and fall of the year, on account of those heavy gales, that is the only difference.

Q. And both the melting of the snow and getting into streams the spring rains tend to make the water in the lake always higher in the summer time than it is in the winter?

A. Well, not much; sometimes they raise, maybe—they say there is a raise of water every seven years, but I never thought, never—

Q. You are not aware, then, that the water is always a foot shallower along about December and January and February and March than it is in June and July and August of each year?

A. No, sir.

Q. You didn't know that?

A. The same breezes and wind will raise the water just the same in the fall and spring. A gale of wind from the north will give us as good water as there is here in the summer season between May and September and October.

Q. Then the government report, showing that there is

Evidence before
Muster.

an average difference of about a foot between the stage of water in the middle of winter on into the spring, and the stage of water in the early summer and fall is mistaken, is it?

Mr. Ayer: I object to the form of that question.

A. I didn't see the government report, but the water in the summer season may be higher than it is in the 3-22-129 fall and spring because of the—we might have gales of wind to make the changes in the water, and the water on a level here now, say for a month, with very little heavy breezes and the water certainly will be better, the stage of water; that is the way I account for the water you speak of now in the summer season.

Q. Do you know how many vessels there are that come into this harbor engaged in the grain business?

A. No, I do not.

Q. Have you any accurate knowledge of the average carrying capacity of the average vessel, taking all vessels of all kinds engaged in commerce here in Chicago into consideration?

A. You mean the average tonnage of the vessels?

Q. Yes, of the average vessel—of all vessels engaged in all kinds of business here in commerce here in the Chicago harbor; not grain and lumber, but all kinds.

A. No.

Q. Did you know in 1869, and can you state now from such knowledge, what the average carrying capacity in tons was, of the average vessel then engaged in commerce in the Chicago harbor, taking all the vessels engaged in commerce into consideration?

A. The tonnage at that time didn't average over five or six hundred tons.

Q. Per vessel, the average?

A. They didn't average that.

Q. You have spoken about that breaking sea that used to come in and affect vessels going northwest up that old channel after they rounded the south buoy opposite Madison street; wasn't that occasioned by the sea breaking over the sand bar there outside and making it very rough inside?

A. The sand bar helped to make the channel better, if anything. It was shoal water, about nine feet of water where this pier now stands; there was the bar and inside where there was about, well, 10 or 11, that was all in the channel and the cause of that bar was the sea breaking

against the north pier and bearing across the mouth of the river and running south.

Evidence before
Master.

Q. Supposing that old channel had continued to be used, the location of the breakwater on that sand bar would be a great assistance to a vessel going up that old channel, would it not—it would shut off the sea from the outside?

A. Cut off the breaking sea, but it would be almost impossible coming up this channel now with the vessels we have.

Q. I am speaking about how it was when you used the channel.

A. Any protection outside there would have done not only that, if they had that protection they wouldn't have had to go south, we would have had the water we have now between the piers.

Q. The breaking sea you complained of at that time, was because you didn't have any protection?

A. Yes.

Q. You were on a lea shore practically?

A. On a lea shore.

Q. The average draft of vessels at that time was about 9 or 10 feet, wasn't it?

A. About 10 feet; 10 feet was about the highest.

Q. Most of the large boats that are built now are constructed of iron, are they not?

A. Yes, most of them.

Q. The development of these large grain carriers has been occasioned by the utilizing of iron in the construction of vessels, had it not?

A. Yes.

Q. That is all within the last four or five years, is it not?

A. Well, make it about eight years.

Q. Since 1885, practically?

A. They are not building many wooden vessels now.

Q. In fact they are building them so large now days that they break in two?

A. Well, I don't know, they are not quite as long as the ocean steamers, some are very near it, but they haven't got the depth for the strength.

Q. Couple of them broke in two and wrecked here?

A. One of the largest vessels on the lakes broke in two, the Western Reserve, and it surprised me.

Q. Well, now, when did you first become acquainted with St. Clair Flats?

Evidence before
Master.

A. When I come to Chicago first time, it was in—from 1837, any way I will say with safety, up to the present time, fifty-eight or nine years ago.

3-22-130 Q. When did they last deepen St. Clair Flats?

A. When they built those piers the St. Clair Flats used to be in a different channel altogether, they used to go around and down the northwest channel.

Q. When did they deepen between the piers for the last time?

A. Well, they are at it all the time.

Q. When did they last lower the depth, do you know?

A. Last summer they were at work there and the year before; they are building a channel—dredging a channel twenty feet of water clear across Lake St. Clair.

Q. Opening the channel between the piers now, last summer?

A. Not less than 18 or 19 feet of water.

Q. For how many years prior to last summer was it 18 feet?

A. Perhaps five or six years.

Q. And what was the depth prior to that time?

A. When they built that cut there, they was to get 16 feet of water there.

Q. They built a cut about five or six years ago and got 16 feet of water?

A. Yes, sir.

Q. How deep was the water before that time?

A. About 14 feet in the cut.

Q. And then how long was it 14 feet, how many years?

A. It was 14 feet until they deepened it. It was not less than 14 feet when they first built the cut.

Q. When did they first build that cut?

A. I couldn't tell you the year exactly; I wasn't sailing at the time.

Q. Within the last twenty years?

A. Yes, it was since——

Q. Since you ceased active sailing?

A. Yes.

Q. Before they built the cut, what was the depth of the water through St. Clair Flats?

A. In 1847 there were 7 1-2 feet of water.

Q. How was it in 1867?

A. In 1848 there was about 8 feet of water; in 1867 I should call it from 10 to 11 feet.

Q. All the commerce of the lakes, east of Lake St. Clair, which comes west, has to pass through that cut, does it not?

A. Yes, some of the light draft vessels and some excursion boats don't go into the cut. You can call it all the commerce passes through there.

Q. And prior to the building of the cut, they all had to go through the channel?

A. They had to go right around the northwest channel.

Q. Through this 10-foot channel?

A. What we call the Flats, the old Flats channel, northwest of where the cut is now.

Q. Do you know of any vessel that has a tonnage of 4,000 tons entering the Chicago harbor?

A. I don't know what the tonnage of those two large vessels is that are here now loaded; they will carry more than that; they will carry almost 1,000 tons more than that.

Q. They ever been here before?

A. Yes, they have. This Curry was never here before; she has got 228,000 bushels of oats in her. They are very large vessels; the other is the Centurion.

Q. She ever been here before?

A. The Centurion has been here before.

Q. The Centurion has been?

A. She came here in the fall and laid up here; she is loaded here now.

Q. Where is she laying?

A. Below Rush street bridge, at Kirk's dock.

Mr. Ayer: Where was she loaded?

A. She was loaded at different places up the river.

Q. Did she complete her load up the river?

A. Yes, she came down the river, her cargo of oats; I don't think they loaded her to over, well, not over 15 feet at the outside.

Mr. Ayer: I thought she loaded at the Illinois Central elevator?

A. She might have finished there.

Q. When did the Centurion first appear here; what year?

A. I think it was last year.

Q. These two boats are iron boats, are they not?

A. They are steel boats.

Q. And they are the two largest boats that ever came in here?

A. They are now, as far as known; they are building something down here larger, at South Chicago.

Evidence before
Master.

3-22-131 Q. Now then, Captain, there never were such large boats known here before last year?

A. No, not as large as those two.

Q. And yet the Curry is loaded to about 15 feet of water?

A. I don't know what her draft of water is.

Q. I thought you said that.

A. They wouldn't load her to over that, I said; I don't think she is drawing more than that with that oats in her. She will carry herself full of oats, but not of heavy grain, because she couldn't get out of here; I suppose she would draw 20 feet of water with a full cargo in.

Q. Oats are lighter than grain?

A. Sixteen tons to the thousand bushels of oats.

Q. The dredging industry is a very large one here in Chicago, is it not?

A. There is none—very little, that is, doing in the harbor; the docks has to be dredged out by private parties; the government is not dredging any that I know of in the river, or the city either.

Q. I suppose there is always more or less filling up going on around the docks, isn't there?

A. Oh, yes.

Q. Currents strike against the wall of the dock and deposit more or less silt, &c.?

A. Don't know; not as much as it used to, but according to the depth of the water in the river it fills up in the slips faster, some of them, than it does in the main branch of the river.

Q. And the channel of the Chicago river you say is not dredged at all now?

A. Not that I am aware of; I haven't heard of any dredging being done in the main river lately.

Q. So that anybody that has a dock adjacent to the river only needs to dredge around his dock, that is all?

A. That is all.

Q. He can get into the river, and then he gets out all right.

A. Gets in so that the vessel can go into the river, in and out, that is all he does.

Q. Now, if you should build right along side of the Chicago river for a reasonable distance to give you wharf room for the trade that you would expect to get, and should dredge around your dock to keep it clear of the deposit going on, would you not consider it a practical way to run your

dock in connection with navigation to take advantage of the depth of the water in the river and dredge your channel to the river rather than running your dock out a mile to get 18 feet of water?

A. They wouldn't allow me to build the dock out.

Q. If you were able to build a dock out, you wouldn't think of doing it, would you?

A. No, sir.

Q. You would try and adjust your dock to the Chicago river?

A. I wouldn't be allowed to; I might want to do it; Mr. — tried to do it and he was stopped.

Q. Who would interfere with you?

A. The Board of Public Works did at that time. My brother was president of the Board at that time, and he stopped that work quick.

Q. Suppose you wasn't interfered with, instead of building out a mile into the lake to get 18 feet of water, you would try and adjust your dock to get into the river?

A. Would be very much cheaper for me to dredge from the Chicago river along side of my dock, dredging out into the river.

Q. When you dredge a channel from the Chicago river, you have then placed your dock in direct connection with practical navigation of the heaviest kind, have you not?

A. Yes.

Q. No necessity for a man to build a dock out into the lake if he can, by dredging a channel, get connection with the Chicago river, is there?

A. Not unless he wants to build a dock out into the lake and make a harbor there for his business way out into the lake.

Q. Make a harbor of his own?

A. Yes.

Re-direct examination.

Q. Will you state whether you have ever seen a loaded vessel moored along side of the Illinois Central right of way between Park row and Randolph street, either before or since the outer harbor was constructed?

A. What size vessel, or what kind of vessel?

3-22-132 Q. Lumber vessel; did you ever see a lumber vessel or any vessel loaded, the ordinary size used

Evidence before Master.

Evidence before
Master.

in navigation, moored along side the Illinois Central right of way between Randolph street and Park row?

A. Not along side; I have seen little vessels that was moored outside there that was carrying piles at the time the Illinois Central track was built there, but they are not safe there; they would have to leave there any time the wind would come in from the east and go into the river until they got a chance to unload. There was no breakwater outside of there.

Q. That was while they were constructing that breakwater, wasn't it?

A. Yes, sir.

Q. And the piles that you speak of, I suppose were used in the construction of the breakwater?

A. Yes, sir.

Q. But since that breakwater was constructed have you ever seen any loaded vessels lying there along side that breakwater, or what was then the breakwater?

A. After the track was built?

Q. Yes.

A. No, I never did.

Q. Will you state whether the water in the lake south of Randolph street and between Randolph street and Park row was an open roadstead before the construction of the government breakwater?

A. It was an open roadstead.

Q. Did you ever see any vessels, loaded vessels, anchored inside of where the government breakwater now stands, I will say west of the old channel which the vessels used to take that were bound for the Chicago river?

A. No vessels came to an anchor outside, altogether outside the harbor; they had to come to there.

Q. Was the water deep enough to allow loaded vessels of the ordinary size drawing eight or ten feet of water?

Mr. Hamline: Objected to on the ground that he hasn't stated that they anchored on account of depth of water.

Q. Was there not depth of water inside west of the old channel that the vessels used to take in approaching the Chicago harbor to allow vessels drawing eight or ten feet of water to navigate?

Mr. Hamline: Objected to on the ground that it doesn't appear that he does know.

A. Not with safety; they would be on the bottom strik-

ing there with a sea—any kind of a sea coming in from the east.

Evidence not
Master.

Q. What is the largest kind of vessels you have ever seen that are accustomed to sail over that portion of what is now the outer harbor?

A. The largest vessels carried about 700 tons at that time.

Q. I want to know what was the largest size vessel that you have ever seen sailing over that portion of what is now the outer harbor which lies west of the old channel; what kind of vessels are they that used that water, if any?

A. Well, I saw vessels—the largest size vessel didn't carry over 700 tons.

Q. Hasn't the water inside of that old channel been used for pleasure boats, small sized steamers and sailing boats?

A. Since the breakwater was built there?

Q. Yes.

A. Certainly, yes.

Q. Have you ever seen any other kind of vessels use that west inside of the old channel?

A. No loaded vessels. Only time I saw them use that channel here since the breakwater was built is vessels, light vessels coming in, little lumber vessels running back and going inside for a lea before the outer breakwater was built.

Re-cross examination.

Q. Before the breakwater was built no vessel would think of anchoring near shore, would they?

A. Wouldn't be safe for them; several vessels was beached there many a time.

Q. They wouldn't have sea room, would they, in case a storm came up?

A. They would be right in the breakers, in shoal water pounding, they wouldn't last long.

Q. They wouldn't have any sea room to get out if a storm came on?

A. It was too narrow, it was only a narrow channel, mostly.

3-22-133 Q. What do you call a roadstead?

A. A roadstead is any—such as the straits of Mackinac, where a vessel would be laying perfectly safe. Some people would call Lake Michigan or any of our lakes a roadstead; wherever a vessel has got soundings and come

Evidence before
Muster. to an anchor, but it was a poor roadstead here before they had protection here in a gale of wind from the north for vessels.

Q. It is a dangerous lea shore, is it not, north wind?

A. It was then where there was no——

Q. No place to run to?

A. I consider it safe enough now to come in.

Q. Then there was no place to tie to?

A. Not at all.

Q. If you happened to miss that little opening at the south of the river, way you would go on the lea shore?

A. Yes, they would have to trust to their anchors or stand off to sea and keep under way until they could come in here.

Q. As a matter of fact, there were no docks and no business carried on south of Randolph street since the outside breakwater was built to call loaded vessels down south of Randolph street, was there?

A. You mean to handle cargoes, etc.?

Q. Yes.

A. Not that I am aware of.

Q. No place for them to take cargoes, no place for them to get cargoes south of Randolph?

A. Not unless they——

Q. Nothing but railroad tracks, was there, along the lake front?

A. You mean from Randolph to 13th street?

Q. Yes.

A. No, I didn't see any vessels loading and discharging.

Q. There is no business there of any kind?

A. No, not for commerce; only the excursion business, that is all.

Adjourned to Friday, April 5, 1895, at 2 o'clock P. M.

April 5, 1895.

Evidence before
Master

Met pursuant to adjournment.
Present, as before.

WILLIAM HARMON, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. Please state your name, residence and occupation.

A. William Harmon, tug owner and manager; residence, Oak Park, Illinois.

Q. How long have you resided in or near Chicago?

A. Sixty years, within two months; fifty-nine years and ten months.

Q. How long and how intimately have you been engaged in and about the tug-boat business in the harbor of Chicago?

A. I commenced on a tug-boat as chief engineer in 1858; I was engaged on tug-boats until 1864; was captain of tug-boats until 1867, and have managed tug-boats since that time; that is, superintending and managing them. Commenced on shore in 1868.

Q. Has your business kept you generally informed as to the character, size, capacity and draft of vessels engaged in the commerce of the lakes?

A. Yes, sir.

Q. State whether any, and if so, what, changes have taken place with regard to the dimensions, capacity and draft of vessels engaged in lake commerce arriving at and clearing from the port of Chicago, within your recollection.

A. In 1858 and up to 1862 or 3, what we called the deep water draft of vessels was from 10 to 12 1-2 feet, and the size, carrying capacity, was from 15 to 20 thousand bushels of grain; that was considered a large vessel in 1858, 59 and 60; 25,000 was a large vessel. The size gradually increased, so that now the very large vessels carry from 120 to 150 thousand; in fact, there is one vessel in here now with 160,000 bushels of corn in her. The draft of water has increased from what was considered very deep at 12 feet to 16 and 16 1-2 feet, and in the immediate future it will be 21 feet, because the United States improvements going on at the "Soo" canal, at Duluth and St. Clair river, are all going on on the basis of 21 feet draft of water. Those large vessels now constructed are all constructed with special view to being loaded to 18 or 20 feet of water.

Evidence before
Master.

Mr. Hamline: I move that answer be stricken out, with relation to the future, as being speculative, and so far as it relates to anything subsequent to time suit was begun.

Q. To what extent, if any, have steam vessels or propellers superseded the use of sailing craft?

A. In the first years mentioned, from 1858, time I observed the matter closely, sail vessels at that time were certainly three-quarters of the tonnage; now I should estimate that the steam vessels is over three-quarters of the tonnage. Last year there was not one sail vessel, to my knowledge, trading between Chicago and any Lake Erie, Lake Ontario or Lake Superior port; all done by steam.

Q. Do you know whether the aggregate tonnage of vessels engaged in the commerce of the lakes, arriving at or clearing from the port of Chicago, has increased or diminished during the last 25 years, and to what extent?

A. It is a matter of record, and I haven't the record in my mind; I know the tonnage has increased; that is a matter of official record, of course.

Q. Do you know whether the number of vessels has increased or diminished during that period?

A. The number of vessels is not as great now as it was 15 years ago, but the tonnage capacity of each vessel has increased amazingly. Vessel of 100,000 is not considered any more extraordinary size than the 25,000 vessel used to be.

Q. From 1858 to the present time, what has constituted the harbor of the city of Chicago for commercial purposes?

A. Chicago river.

Q. Can you state approximately what is the number of miles of wharfage along the sides of the Chicago river and its branches, within the limits of the city of Chicago?

A. Including the slip frontage, it is something over 27 miles; at least it is just as I have read the statistics on the question.

Q. That counting—

A. That is counting wharfage on both sides of the river and both sides of the slips.

Q. Is that according to your own observation?

A. Well, I have been to the head of navigation, of course, each way; I know the extent of it, but have never measured off the miles.

Q. At what places are there tunnels under the Chicago river or its branches, and about when were they constructed?

A. There is one at LaSalle street, one at Washington street, one between Jackson and Adams; that is, you mean passenger tunnels? Those are the only ones that are any way in the navigation. Of course there are water-pipe tunnels, any amount of them. The Washington street was the first one, and that was when I was running a tug-boat, that was somewhere along previous to 1868, about 1866, I guess. The LaSalle street tunnel was completed just about a year before the fire, I think about 1869. The Washington street tunnel was deepened about four or five years ago—rebuilt and lowered.

Q. It was rebuilt?

A. And lowered three feet. I had a petition to lower it twenty feet, but the council amended the petition to make it 17 instead of 20, and passed it that way.

Q. When was the third tunnel constructed, that you have mentioned?

A. Three years ago. It was only completed within a year, you might say.

Q. At ordinary stages of water, what is the depth of the water over those tunnels?

A. The LaSalle street tunnel is 17 feet below datum; that is the grade, and that is the grade of the Washington street tunnel, and I think Van Buren; I know the ordinance was passed for 17 for Washington street and was to conform to the LaSalle street tunnel. Datum is about 1 to 2 feet below what was called the ordinary stage of water; the city datum is low water of June, 1847, which has never been reached for any extended period until two years ago, we had the water then, that season average below datum. You can go over LaSalle street tunnel with the present stage of water without touching 17 feet of water.

Q. All vessels drawing 17 feet of water pass the LaSalle street tunnel?

A. Yes, in ordinary stage of water.

Q. What do you mean by ordinary stage of water?

A. That would be about a foot above datum.

Q. Is the depth uniform over the whole surface of these tunnels?

A. No, the LaSalle street, there is a channel—it gets a slant from both sides of the river, and there is only a place not to exceed 100 feet wide where there is that depth; I don't think it is over 80 feet wide. I have seen the chart of it in

Evidence before
Master.

the United States Engineer's office. I know you have got to go quite a ways away from the dock on each side in order to get into the deep part. The passage was enlarged there. The bends that you have got to make there make it impossible to get 17 feet of water over that; it would be, providing you could go straight ahead, but you have got to make a turn to turn the vessel.

Q. How is it in those respects in regard to the Washington street tunnel?

A. Washington street tunnel is the same way, that is, they put a bridge right in the center of the tunnel; this center pier was bridged right in the center of the river, although there is 17 feet in the center of the river, there is also a center pier there so that you can't navigate that part of it. You can not go over the center of the Washington street tunnel with as deep draft of water as you can over the LaSalle street tunnel because the LaSalle street tunnel you can navigate the center and the Washington you can't. You can probably get 16 feet of water is about all you can safely say over the Washington street.

Q. Will you state whether those tunnels or either of them have, to your knowledge, at any time interfered with the passage of vessels up or down the river, and if so when and for what reason?

A. The tunnels restrict the draft to that extent. As I say, as yet the Chicago river is not improved to a greater depth than what they have across the tunnels, with the exception of east of the tunnels. But without the tunnels, there are vessels that could load to 18 or 19 feet of water from other ports, can't come into Chicago river, those large vessels that are now in existence and more building, can't go to any elevator above the main river, but that is on account of bridge obstructions and crookedness and narrowness of the channel.

Q. Do you know whether vessels that are loaded with grain are sometimes obliged to descend the river with only a partial load and complete their loading at the elevators below Rush street bridge?

A. Yes, they can load to a greater depth of water down there; they very often finish their load at the Illinois Central.

Q. Do you know anything of the two vessels called the Centurion and the Curry?

Evidence taken
Master.

A. Yes, and Merida is another; there are three of them.

Q. Do you know what the capacity of those vessels is?

A. Centurion, she has 160,000 bushels of corn in her.

Q. Where does she lie?

A. Immediately west of Wells street bridge, on the north side of the river, or rather, in the middle of the river.

Q. Where did she load?

A. Illinois Central.

Q. Illinois Central elevators?

A. Yes, she can't go up the river.

Q. That east or west of Rush street bridge?

A. East of Rush street, at the Illinois Central slips. She towed up to Wells street for a place to lie.

Q. Do you know anything about the lading of the Curry?

A. That loaded at the Illinois Central; 247,000 bushels of oats; calculation is to take in some more.

Q. They are loaded, and waiting the season of navigation for departure?

A. Yes; the Centurion is drawing about 16 feet 3 inches, I judge. The Curry is drawing 16 feet aft and 14 feet forward, but she has got to be loaded the other two feet forward; they have not completed loading her.

Q. What is the depth of water at ordinary stages on the channel of what are known as St. Clair Flats?

A. Well, at St. Clair Flats the 21 foot channel is complete at the Lime Kiln crossing of the Detroit river; 3-22-136 Lake St. Clair they have not yet completed, but you can go there with 17 feet of water, but the contract is now going on and is approaching completion of having a 21 foot channel there.

Q. Is that channel a natural or an artificial one?

A. Well, it is—the St. Clair canal is artificial largely, that is, it has been a place that has been dredged out and then sheet piling to keep the sand from washing in and filling the banks; it is a mere shoaling, it is like the bar at the mouth of the St. Clair river you might say, or entrance of Lake St. Clair; same as a bar forms on other rivers. Lake St. Clair is a mere widening of the straits between Lake Huron and Erie, it widens into a big flat, and that is shoal all the way along; it is only about 18 feet of water.

Q. Are there, during the season of navigation, any fluctuations in the depth of the water in the Chicago river and along the shore of Lake Michigan in front of the city of

Evidence before
Master

Chicago, and if so, what are the causes of those fluctuations and what is the extent of them?

A. Those transient fluctuations I suppose you have reference to?

Q. Yes.

A. All caused by high winds. A high wind from the southwest will blow the surface water and lower the level here; a high wind from the northeast will blow it towards Chicago and raise the level in Chicago river.

Q. What is the extent of it?

A. That will last during the life of that wind—while that wind lasts. It will go down and then there will be a back set so that part of it will be recovered; the wind lasting couple of days or more. The variation, I should judge, between an extreme southwest wind and a high northeast wind would be over two feet; would average, I think, over two feet.

Q. What is the depth of water in the channel of the Chicago river east of the LaSalle street tunnel at ordinary stages?

A. There is over 17 feet of water; when we pass the LaSalle street tunnel then our difficulties are all over; we don't expect to ground any after that.

Q. Having reference to the size of the vessels which are now used in lake commerce, and especially at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of that commerce?

Mr. Hamline: Objected to; immaterial and irrelevant, as not referring to the time prior to beginning of this suit.

A. I would consider now for vessels for Chicago trade, there should be over 16 feet of water. The United States government, in dredging a channel out here a year or two ago, dredged to 18 feet of water all along east of Rush street; that is Captain Marshall's proposal there, 18 feet of water. If I was building out on the lake, for instance, building a pier out in the lake, I would calculate I would have to have over 20 feet of water, because I would have to have water enough under the bottom of the vessel so she wouldn't be pounding on the bottom or she would be getting aground there. Of course it depends on whereabouts you may—if you are going out in the lake I would go out where there is water enough so that a vessel could lay there safely.

Q. Are you advised of the tonnage of the vessels now being built for commerce on the lakes; if so, what is that

tonnage, and what must be the depth of water necessary to float the vessels when loaded?

Evidence not
Master.

Mr. Hamline: Objected to as purely speculative, and as immaterial and irrelevant.

Q. Two vessels building now in South Chicago and one in Bay City, each 405 feet long and 48 feet beam, calculated to load to 21 feet of water; when the channel is completed, the "Soo" canal, the Canadian canal, will be able to be used this summer; the United States government canal will not be complete before next year, but both of those are over 21 feet draft. Until those channels are deepened to that extent they will have to satisfy themselves with 16 and 16 1-2 at Chicago, but vessels loading at Escanaba for Cleveland or South Chicago can now load to over 17 feet of water; did last year.

Q. Have you general knowledge of the location of the piers and slips constructed by the Illinois Central Railroad Company between Randolph street extended eastwardly, and the Chicago river, and also the pier between 12th and 13th street south of Park row?

A. Yes, sir, I know where they are.

Q. And also of the piers and slip constructed by the Illinois Central Railroad Company in the lake, reaching down to about the north line of 16th street produced eastwardly?

A. Weldon?

Q. Yes.

A. Yes, sir.

Q. Do you know the depth of the water at the outer ends or sides of those several constructions?

A. It is between 12 and 13 feet across the mouth of those slips.

Mr. Hamline: What slips do you refer to?

A. D. E. F., slips in the basin.

Q. At Randolph street?

A. Between Randolph and the south pier.

Q. Assuming that the depth of water at the outer ends and sides of those piers doesn't in any case exceed 14 or 15 feet in the ordinary stages of water, do they or any of them, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is now transacted in vessels?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. No, sir. I will state this: Since the north channel

Evidence before
Master.

was cut through the commerce has abandoned that channel. We used to have to come around that bar and around that way, but long before the north channel was cut through, forming an open road, the north channel directly east from the pier, long before that was completed the south channel was so filled up, washed in with the sand, etc., that it was very dangerous; if there was any bad weather, any sea on, it was positively dangerous to tow vessels in. We would refuse to tow vessels in drawing over ten feet of water, and as soon as the north channel was completed the vessels abandoned that, the same as they would any dangerous reef or shoal.

Q. If you, as a riparian owner on Lake Michigan, in this city of Chicago or its vicinity, were to construct a pier or wharf for the accommodation of lake commerce, having in mind the manner in which that commerce is now conducted, what would be the depth of water you would consider it necessary to reach, in order that your pier or wharf should be available for the uses intended?

Mr. Hamline: Objected to as incompetent and irrelevant and immaterial.

A. At least 20 feet out on the lake.

Q. Assuming that the space in the waters of Lake Michigan partially enclosed by the government breakwater on the south of the outlet of the Chicago river will or may be used as a part of the Chicago harbor for commercial purposes, what depth of water, in your opinion as a practical man, connected with the commerce of the lakes at Chicago, should the space thus partially enclosed have in order to accommodate the financial interests of the city connected with the navigation of the lakes?

Mr. Hamline: Same objections.

A. I would consider, in the lake front basin there, with what little swell there is there, to make any way a reasonably safe harbor, there should be over 20 feet of water there. There is a rise and fall there; for instance, a year ago this time, last May, there was quite a little sea in there, and a vessel would strike hard even with 20 feet of water.

Q. Do you know the average depth of water in that basin inside of the government piers, known as the outer harbor?

A. The average depth of the water there? There are some places there that there is 16 to 18 feet. When the World's Fair pier was put up at Van Buren street for the

Whaleback they dredged a channel out there to the east—channel to the pier of 18 feet, so as to allow the Whaleback to come in in all kinds of weather. She draws about 11 feet and a half, I guess; but we have tried to put vessels in there within two or three years that were drawing 15 feet, and found we couldn't put them in so they would lay safely. There is places where there is more than 15, but the anchorage is insufficient, and we couldn't put them there 3-22-138 without having them lay on the bottom. The

Centurion was brought stern first clear up to Wells street; she couldn't be put in the basin, because we couldn't get her in there drawing 16 feet of water; she had to be brought stern first from the Illinois Central clear up to Wells street. If there was sufficient water in the basin, she could lay there.

Q. Are you familiar with what are called the north and south piers of the Chicago river?

A. Yes, sir.

Q. Does your recollection reach back to the time when vessels engaged in the commerce of the lakes, in order to reach the harbor of Chicago, were compelled to sail around a sand bar as far south as Van Buren street, or near there, and thence northerly into the Chicago river?

A. Yes, sir; that is what I spoke of a while ago as being the dangerous waters that we had to navigate.

Q. Do you know whether or not the government outside breakwater is located on that sand bar?

A. It is located on the sand bar, to the best of my knowledge, and the entrance, the gap there, is just about where we used to go to round the bar, at the foot of Van Buren street.

Q. Was there any difficulty in navigating that old channel, and if so, for what reasons?

A. There was a great deal of difficulty, because the sea used to wash over the bar and gradually filled up the channel. The channel between the bar and the main land was shallower and kept getting shoaler, so that every year the channel was more difficult to navigate, the vessels were more apt to stick and pound, and it never was good anchorage ground, because the sand that—and before the north channel was cut through, a year before, when there was any sea on from the northeast, we wouldn't dare bring in any vessel drawing 10 feet of water; it was unsafe.

Evidence before
Master.

Q. Do you remember when the direct channel was opened at the mouth of the Chicago river?

A. It was in 1864 or 5, I am not positive—one of the two years, either '64 or 5.

Q. Do you know by whom that channel was opened?

A. My impression is, from reading the papers at the time——

Mr. Hamline: Object to that.

A. ——it was done by the United States government. My impression is that the city did the work, and afterwards wouldn't wait—tired of waiting for the action of Congress—commenced, and afterwards were reimbursed by the United States government, because the city was being barred out from lake commerce because of the condition of the south channel.

Q. What was done in order to open that channel?

A. A dredge was employed and cut the sand bar through at the end of the river.

Q. At the end of the river?

A. Yes, right at the end of the north pier.

Q. Do you know whether the south pier was extended at that time, or about that time, across the old channel which extended in a southeasterly direction down toward Van Du-ren street?

A. The south pier was extended, I think, about as far as it now extends beyond the present Illinois Central slips; that would be somewhere about—I think it was extended across the channel some 200 feet or so; the south pier now extends beyond the Illinois Central somewhere about 200 feet.

Mr. Hamline: What year?

A. It was after '63, carried on so slowly and gradually——

Q. Do you know whether or not that south pier built by the government, now intercepts and crosses the old channel?

A. It crosses the old channel, that is, it goes in it; we used to go farther east than that, but the channel extended farther west than the end of the south pier now. The channel used to reach from about the east side of the present gap to the east line of the Illinois Central slips there—basin slips.

Q. Do you know how far the south pier extends beyond the Illinois Central piers?

A. Somewhere about 200 feet. I have never measured it; between 200, possibly 225 or 30 feet.

Q. Has the State of Illinois or the city of Chicago ever built or to your knowledge proposed to build any pier, dock or wharf for commercial purposes in the waters of that portion of the lake within the outer harbor of Chicago between Randolph street and Park row?

3-22-139 Mr. Hamline: I object to the witness stating as to his supposition of what the State of Illinois proposed to do, or the city of Chicago.

A. I know of no proposals. I know there was newspaper talk about it, but whether there was any official action taken or not, I don't know.

Q. Has the State of Illinois or the city of Chicago ever built any wharf for official purposes in the outer harbor?

A. Unless you call the Van Buren street wharf for the World's Fair pier one.

Q. Was that a temporary structure?

A. Yes; it was to be taken off within twelve months after the fair closed.

Q. Has it been removed?

A. Yes, sir. Permission was given to the World's Columbian Exposition Company to build that pier, with the understanding it was to be taken away at the end of the fair.

Q. Has there, to your knowledge, been any other attempt on the part of the State of Illinois or the city of Chicago to improve the space inside the government breakwater south of the Chicago river for use as a commercial harbor?

Mr. Hamline: I object to that.

A. Not to my knowledge.

Q. Is there or not a breakwater in the waters of the lake some distance north or northeast of the north pier, which was constructed by the government?

A. Yes, sir.

Q. Please state the length and general direction of that breakwater.

A. It is one mile long half way between the north pier and the crib; that is, it is one mile from the north pier and one mile from the crib in a northeasterly direction; that is, to look from the old light house to the crib you look right across the middle of it; that breakwater extends half a mile each way, southeast and northwest.

Q. That is the direction of the breakwater, northeast and southwest?

A. Northwest and southeast.

Evidence before
Master.

Q. What advantages are furnished to vessels engaged in commerce, by this breakwater?

A. It breaks the sea and makes a safe entrance for Chicago harbor and also makes a harbor of refuge by that breakwater, for vessels that wish to lay to. They can lay there and lay up to and anchor even when they are unable to come inside, and it has made the entrance safe and possible when before that it was—before that it would be impossible for a vessel to come in.

Q. If a vessel were coming into Chicago under heavy wind from the north or northeast, what course would it naturally take after rounding the easterly end of the north pier, to reach a place of safety?

A. Go right up Chicago river.

Q. With a heavy wind from the north or northeast, what protection is there attainable by a vessel making entrance to the port of Chicago outside of the Chicago river, in the absence of tug service, by tug boats?

A. Lay under the northeast breakwater.

Q. Is there any other?

A. No other.

Q. What is the depth of water on the southwest side of that breakwater?

A. From three and a half to five fathoms, that is from 21 feet to 30 feet.

Cross-examination by Mr. Hamline.

Q. That whaleback that you spoke of as coming to the Van Buren street World's Fair pier, was that the Christopher Columbus?

A. Yes, sir.

Q. That ran between Van Buren street and the World's Fair during the fair year?

A. Yes.

Q. Do you recollect how large a boat that is, how long it is?

A. It is 382 feet over all.

Q. About how wide?

A. 42, I think.

Q. That is the largest passenger boat that ever came into Chicago, was it not?

A. Yes, I guess it was.

3-22-140 Q. Carried more passengers than any other passenger boat we ever had traveling here? Evidence before Master.

A. Yes.

Q. That is the longest boat that ever came into Chicago up to that time, was it not?

A. Yes, I guess it was, but a great deal of it overhung. Great, long, smooth bow on her.

Q. As a matter of fact, you never measured the water yourself off the Randolph street docks of the Illinois Central, did you?

A. No, sir.

Q. And you never thought of measuring the water down there at 16th street where they built that slip?

A. No, I haven't taken any soundings now for a number of years there.

Q. You never took any soundings off that dock the Illinois Central built at 13th street, did you, after it was built?

A. Not personally, no; that is, with a pole or anything of that sort; we have taken soundings; generally running vessels; if we got a vessel drawing 15 feet of water and she grounds, we call that 15 feet.

Q. You never undertook to take a vessel drawing 15 feet of water into that slip at 16th street?

A. No.

Q. You recollect how that slip is built?

A. Yes.

Q. It runs parallel with the shore?

A. Yes.

Q. About 100 feet from the shore would it be possible for a boat to get in that with any sort of swell?

A. You mean with any sea on?

Q. Yes.

A. Oh, no.

Q. Absolutely impossible, wouldn't it?

A. It is calculated for little scows and little vessels to go in there in case they are unloading, come a sea on these, it is kind of a little shelter.

Q. How do you know it is so calculated?

A. One reason is that a tug that I was managing was doing the work there, waiting on the scows, doing the towing, &c., around there.

Q. When it was built?

A. Yes.

Evidence before
Master.

Q. Your tug line used to do the work there?

A. Yes.

Q. Built the Illinois Central—

A. Yes, sir; probably know a little more about those things on account of furnishing tug service when that was going on.

Q. For the Illinois Central?

A. Yes.

Q. As a matter of fact, a boat to go in there could never get in in the face of a storm, could it?

A. No; well, she could get out better than she could get in.

Q. You recollect, don't you, that slips run parallel with and 100 feet from the main shore front there?

A. Well, it is—I don't how much they may have made out since, but it was a little more than that, more than 100 feet from what you might call the shore line.

Q. Are you sure of that?

A. Yes.

Q. How much more?

A. One hundred and fifty feet, any way.

Q. Is there sea room enough for a boat to get out of that slip with any wind at all from the south, east or north?

A. Oh, from the south she could get out, or from the north; that is, a tug boat or any steam boat like that, it is only a small slip and light wind in it, but a tug boat could get out there; great deal safer to get out than to get in.

Q. Well, now, you say that the south pier was extended across the old channel in 1865?

A. It was. I say the north channel was built—the bar was dredged away in '64 or 5, and right in connection—right after that, or in connection with the bar a year afterwards I think the south pier was extended across there. It couldn't be extended until we—

Q. When it was extended that next year, was it extended as far east as it now extends?

A. I say it was not extended—the progress was so slow, it extended a little and a little more and then in connection, or right after that time they had an extension of the north pier and the Ogden Land Company got permission to make a gap and make a slip on the north side, so instead of having the north slip extending continuously, it left a gap and the Ogden Lumber Company arranged with the government some way or another so as to build the pier and leave the

light house slip. While that was going on at the same time this extension was going on of the south pier. Those are matters of record, and of course I don't pretend to put my memory against official statistics.

3-22-141 Q. You don't know what year it was that the south pier was extended out as far east as it now extends?

A. It was somewhere between '64 and '70.

Q. And you recollect where the old light house used to be?

A. Yes, sir; that used to be the end of the north pier; the end of the north pier is the present entrance—

Q. It was taken away a couple of years ago, wasn't it?

A. Year ago last summer.

Q. Now, when this channel you speak of existed, you used to come sailing around from the north down as far as the south buoy about opposite Van Buren street, and then you would head northwest, would you not?

A. Yes.

Q. Head west of the lighthouse on the end of the north pier?

A. We used to head, we used to—of course with a north-east wind we would head east of it to make up for the fall that the vessels would have; keep them well to windward. There was a bend where the pier line makes kind of a decline to the north, used to head always for that point, that is west of the lighthouse.

Q. You would substantially take the course, to strike the mouth of the river, west of the lighthouse which stood on the end of the north pier?

A. West of the lighthouse that stood on the end of the north pier.

Q. When you came up that channel you were really running parallel with the shore more or less?

A. Yes.

Q. So that if there was a wind to the northeast and you sailed northwest, if it was a heavy wind, you would be liable to be turned on a lee shore?

A. We would have to head to the east.

Q. But on the contrary, if the wind was not heavy you would take a straight northwest course west of the lighthouse and run up the river?

A. No, we would steer about the line of the shore; the shore line runs about north by west; north by west half west.

Evidence before
Master.

Q. And you would steer northwest and shoot up into the river?

A. Yes.

Q. When you were sailing up that channel, if there was any sort of a sea at all, any sort of wind from the lake there was always that danger of your getting on that lea shore?

A. Yes, sir.

Q. On account of the proximity of the shore to the channel; that right?

A. Yes. There was a shoal to the east side of the channel about in the line of the south pier and south of it; of the shore.

Q. The main shore was only a few hundred feet away from that channel?

A. It was quite a ways away, main shore; the south pier extends quite a ways away from the south line of the south shore.

Q. You were liable to be thrown up on the Illinois Central filling in there, weren't you, with any sort of wind from the east?

A. Not when we got any near the south pier. It is shoal immediately south of the south pier, what we used to call middle ground, to keep pretty well up, to keep clear of that shoal water there.

Q. The main shore was within 500 or 600 feet of that channel, wasn't it; the land?

A. I should judge it was more than that.

Q. It was within a quarter of a mile?

A. About a quarter of a mile.

Q. Then it was never considered as very safe thing to sail parallel to a shore a quarter of a mile distant with a storm from the windward?

A. Well, you are talking about sailing, but I don't know of any vessel that would sail in with a northwest wind; that wouldn't sail in; it is being towed in; I am talking about handling a vessel with a tug boat. A vessel under sail couldn't make the channel with the wind north.

Q. As a matter of fact wasn't that Van Buren street pier built by the World's Fair Association?

A. Yes.

Q. Wasn't built in the city of Chicago?

A. No. I say, the city gave permission, contract—had the privilege of building the pier with a contract that they were to remove it in a certain time; I think that was my answer.

Q. How many years since iron and steel vessels have been built on the lakes? Evidence before
Master.

A. The Merchant came out in 1863.

3-22-142 Q. Same general—

A. Since then they have been building occasionally; quite a number built previous to 1870, and from 1870 to 1880 more, but now nearly all of them are iron and steel, because vessels have increased so large in size that you can't safely build one of wood.

Q. As a matter of fact, did not the building of iron and steel vessels, as they are now built, start about 1886?

A. Before that; quite a number built before that.

Q. You know of a plant at South Chicago?

A. Yes.

Q. When was that built?

A. The ship building plant?

Q. Yes.

A. Three years ago.

Q. You know a plant over here in Bay City, Michigan?

A. Yes.

Q. When was that built?

A. Three or four years ago; four or five.

Q. Don't those two plants build most of the iron and steel boats used on the lakes now days?

A. Yes, sir, those are the most modern, most extensive plants on the lakes. Cleveland is a very close second. I don't think Cleveland—wouldn't be willing to be called second either.

Q. How long has that one at Cleveland been running?

A. Certainly 12 years.

Q. Since about 1882 or 1883?

A. Yes.

Q. That is the plant that built the Gilchrist that fell in two here on the lake a year or so ago, isn't it?

A. Gilcher, you mean, and the Western Reserve; they also built the Lehi, the Clarion, the Alaska, and several other vessels that are all in good service today. And Buffalo has built iron boats, too.

Q. These boats you speak of as being here today; what are the names of them? Centurion?

A. Centurion, Merida and Curry.

Q. Was the Centurion here in this harbor before it laid up this last winter?

A. Yes, she came up here in mid-summer; was at Chicago Avenue unloading a load of coal.

Evidence before
Master.

Q. That was the first time she ever put into this harbor?

A. She only came out year before.

Q. What time did the Curry appear here?

A. Last fall, first time.

Q. When did the Merida?

A. Hasn't been here, it is now at South Chicago.

Q. Hasn't come here yet?

A. No, she is in South Chicago. They have been engaged almost exclusively in iron ore, except the Centurion, she is chartered by the Anchor Line on general package between Detroit and Buffalo and came up last fall and once that summer.

Q. These iron boats run almost exclusively down to South Chicago to the South Chicago Rolling Mills, do they not, these ore boats?

A. Those that we have mentioned; the Centurion was trading most of the while from Duluth to Buffalo, she was only here once last summer.

Q. How old are those vessels; when were they built?

A. They were built one year ago last summer.

Q. Prior to that there were vessels, not as large as those vessels, but known on these lakes?

A. Not quite as large.

Q. Prior to their arrival here were such large vessels ever seen in this harbor?

A. No. Selwyn Eddy has been here.

Q. When did she come up?

A. Came three years ago. She has been trading here most all the while. And the Pope, another one, and the Onondaga, but they are just large enough so as they could pass through the bridge draws, etc. These three last named ones, the Merida and the Curry and Centurion are so wide that none of the bridge draws of the south branch—they can't go through.

Q. Then they are too big for the width of the draw?

A. Too big for Chicago river when not obstructed.

Q. You know how deep the water was in the canal at St. Clair flats along in 1869?

A. Well, no, only indirectly; that is, we used to consider Chicago harbor and the St. Clair flats were about the same depth, but along in 1869 a vessel of 13 feet was a good draft of water; 14 feet was very deep and vessels would sometimes load here and would ground on the flats with a Chicago load. That is all I know about depths. When a vessel marks such

a depth and she grounds, I know there is that depth of water. Evidence before Master.

3-22-143 Q. How many vessels do you know, aside from these three that you have spoken of that come into Chicago harbor that load with 125,000 bushels of grain?

A. I can count, I guess, half a dozen.

Q. How long since vessels large enough to accommodate 125,000 bushels of grain have been running in this port?

A. About 3 or 4 years. Those now building are still larger than any heretofore built, they are increasing all the while, and the channels, the United States channels they are making are made with the view of increased draft of water—21-foot channel.

Q. You recollect about how many bushels of wheat used to be regarded as a cargo of the large vessels that came into Chicago before the fire?

A. Up to seventy—50,000 bushel vessel was considered a large vessel.

Q. How much water would that vessel draw?

A. She would draw 14 feet; 13 and a half to 14 feet with that cargo.

Q. Do you know anything about the proportion of vessels that are engaged in the lumber trade here in Chicago compared with the number of vessels engaged in the grain trade?

A. You mean sail?

Q. All kinds.

A. The sail vessels are passing away so rapidly now it is pretty hard to keep count of them; the lumber trade is passing away too; Chicago as a distributing port is falling back.

Q. It must be evident to you that you are not answering the questions I put to you. I asked if you know, if you don't, say so.

A. Then I will say I don't know what the proportion is. The proportion of grain and coal carriers now I should say is over two to one.

Q. In number of boats?

A. No.

Q. I am talking—will you please answer this question I put to you?

A. Certainly.

Q. Very simple question, whether you know what proportion of the number of all boats engaged in commerce here in Chicago, boats engaged in the lumber trade bear?

A. No.

Evidence before
Master.

Q. I will ask you whether or not you know now that you did know in 1869, what proportion of all vessels engaged in commerce in Chicago were those vessels engaged in the lumber trade?

A. 1869 there were—majority engaged in the lumber trade?

Q. I ask you if you know?

A. Yes.

Q. What was that proportion?

A. I say the majority was more engaged in lumber trade in 1869 than in the other.

Q. That is the majority of vessels engaged in commerce in Chicago in 1869 were engaged in the lumber trade?

A. Yes, sir. Of course trade, as we call it, lumber, cedar and wood.

Q. Do you know the depth of the water over the crown of the La Salle street tunnel today?

A. It is about 17 feet.

Q. The water itself, actually?

A. Yes; water about the ordinary stage today.

Q. Wind from the south?

A. Southeast, it is not blowing hard. I looked at the water this morning.

Q. About 17 feet?

A. About 17 feet. Not with a view of my examination here, but this in regard to bringing a vessel down the river.

Q. I asked because I understood from other witnesses—I understood the depth of water over La Salle street tunnel didn't exceed sixteen and a half feet.

A. It is about 17 feet.

Q. Do you know how far you have to go out into the lake from the shore line as it is today, anywhere between the river and 16th street, to strike 20 feet of water?

A. Would have to go beyond the Illinois Central breakwater, around that government pier.

Q. How far beyond it?

A. Very short distance, not over 500 feet. In the big blow of last May vessels were very near that big breakwater and they never touched bottom. There was a big sea on.

Q. That was the biggest blow we had got a good many years?

A. Yes.

Q. From the northeast?

A. About due north.

Q. And you recollect seeing a lot of vessels go up on the sea shore that day south of 16th street?

A. Yes, some of them; good many of them went to pieces right outside there.

3-22-144 Q. You recollect a good many vessels finding refuge inside of the basin, so called, that day?

A. No, sir.

Q. You didn't see any in there?

A. I was down there.

Q. You didn't see any that day?

A. The Aldrich lay down close to the south gap with a boat; the Merrimac came in there and we brought her to anchor right abreast of Van Buren street pier she let go her anchor.

Q. Wasn't the Michigan, United States steamer, in there all the time?

A. Don't remember seeing her. I was looking for vessels, I paid no attention to the Michigan, don't remember having seen her there at all. I know the Merrimac came to anchor abreast of Van Buren street and she dragged her anchor clear down to the south gap. The Goodman entered in there, the east entrance and she dragged clear down past the Aldrich, took the bow sprit out of the Aldrich on the way and her anchor got hold of the pier or something so it didn't drag any farther and she was afterwards brought in. The only vessels that I know of that anchored there was either the City of Grand Rapids or City of Grand Haven, don't remember which of the two, and those two dragged down near the Merrimac.

Q. Inside the basin?

A. Yes, I am not speaking of those that were in the slips.

Q. You don't recollect a lot of small vessels right to the north of the eastern entrance?

A. No, sir, didn't see any but the Grand Rapids there; I was only there for a little while.

Q. Are you quite sure there wasn't any in there?

A. I mentioned those that I knew was there.

Q. Besides those three?

A. No, I don't know of any others, and the steamer Merrimac.

Q. You are quite sure there were only three vessels in that basin?

A. No; I say that is the only ones I noticed.

Q. I believe you said the number of vessels was not so

Evidence before
Master.

great here in Chicago harbor as it was 15 years ago, although the tonnage had increased?

A. Yes.

Q. Are you familiar with the fact that the water is deeper in the summer time than it is in the winter in Chicago harbor, under ordinary circumstances?

A. Yes, sir.

Q. After the spring rains and thaws have taken place the lake gets deeper at this end, does it not; and continues until well on towards the next winter? Is that not so?

A. Yes; and it is governed, I think, a great deal by the winters. You take a cold winter and we have better water the next summer.

Q. More snow?

A. Well, not only that, but when the ice is frozen in the Detroit and St. Clair and Niagara rivers, frozen over two or three feet thick, and gorges below that, the under flow is checked; and, besides that, the moisture that falls during the winter is in the shape of snow, and stays there, and then when the thaw comes it rushes in there faster than it can flow out of the river; and, besides, the outflow is restricted in a cold winter, and in a mild winter—the rain that is, and it flows, and the passage is unrestricted through the St. Clair and Niagara rivers, and as fast as the rain comes down it goes over the falls. In a cold winter it is boxed up and kept in reserve, and then it comes in a bunch in the spring. While in the fall generally we have prevailing west—high winds, shift of winds west and northwest, and so on, which have a tendency to lower the water, because the natural, general course of the water from here to Niagara falls is east.

Q. Then, as a matter of fact, during the season of navigation the water is deeper at this end of the lake than it is during that season which is not navigation?

A. That is the general rule, I think.

Q. You recollect about what that average is, difference?

A. Well, no; statistics are the best thing; but I —

Q. Have you ever seen the governments charts on that?

A. No, I don't know as I have.

Q. Did you ever know that the average difference was about a foot between winter and summer?

A. My opinion would be that, but I never saw 2-22-145 the statistics. I say it varies. I know so; yes, the water in the summer has been lower than it was the previous winter.

Q. Put an average difference of about a foot between summer season and the winter season?

A. And in some other summers there would be a great deal more than a foot between the winter previous; winter and the summer.

Q. I am speaking about the average.

A. I should say about a foot difference. My opinion, based on my experience and observation is that the water commences to lower some along in October from September gales, and gradually lowers and we have a low stage of water right along continuously up to the close of navigation, gradually lowering, and we don't get a raise until along in April or May, depends entirely on the lateness or earliness of the season. We know that some winters the flow of the Niagara river—the ice gorges there have stopped the flow so that people have walked across to Goat Island, in that case the flow must be restricted and we are not wasting water that we would if the river was free of ice—

Q. You recollect the slips where the elevators of the Illinois Central Railroad Company are located?

A. Yes, sir.

Q. They run north and south?

A. Yes.

Q. And they empty into the Chicago river?

A. Yes.

Q. Supposing you was a riparian owner, owned that land where the slips are and that there were no slips there; would you seek to get deep water by building a slip from the Chicago river where the main channel was, or would you seek to get deep water by throwing a pier out a quartetr of a mile beyond the government pier, government breakwater into the waters of Lake Michigan?

A. You are speaking now of the slips facing east, ain't you?

Q. I say, supposing you owned that land where the Illinois Central elevators are, and where the slips are that run north and south; supposing those slips were filled up; want any slips there; you wanted to get deep water, as you call it; would you get deep water by building slips to the north and south, or would you throw a pier out a quarter of a mile beyond the government pier into the waters of Lake Michigan?

A. I don't see how I could extend a pier north and south to go towards the government pier.

Q. I didn't say the pier, I said the slip.

A. Throw a slip out?

Evidence before
Master.

Q. Well, I will ask the question again. Supposing you owned the land where the Illinois Central elevators are, and supposing the slips adjacent thereto that run north and south were filled up down there, you wanted to utilize that land for navigable purposes in connection with the commerce of the Chicago river, would you build a slip in that harbor north and south just as those slips are, so as to get into Chicago river, or would you throw a pier out into Lake Michigan a quarter of a mile beyond the government pier if you could?

A. If I wanted to get along side of the Illinois Central elevators I would undoubtedly build a slip in there.

Q. If you wanted to get to the commerce that goes into Chicago harbor?

A. I say if I wanted the commerce of Chicago harbor to go along side of that elevator it would be easier to build a slip there along side the elevator than turn the elevator around facing the other way to where the breakwater was. I don't see any other way you could get vessels along side the elevators except you dredged a slip there, with the elevators placed as they are.

Q. If a man owned that land there without any elevators on it, wouldn't it be the cheapest, quickest and easiest way for him to get to navigable water to adjust that land with reference to the Chicago river, rather than to connect the land with deep water in Lake Michigan by projecting out piers?

A. By building slips then he has got the river frontage and slip frontage both. There are many slips up south branch dredged out that way just on purpose to increase the wharfage—dock frontage.

Re direct examination.

3-22-146 Q. State if you know how high the surface of the water in the Chicago harbor today is above Chicago datum?

A. I don't know, it is about, I think, a foot.

Q. You were asked by Mr. Hamline if you knew what was the number of vessels now engaged in the lumber business at Chicago as compared with all the vessels coming to this port. Did you complete your answer to that question?

A. He asked me the question in a different form afterwards and placed the date 1869 instead of the present date and I answered the question then.

Q. What do you say now in regard to the number of vessels engaged in the lumber business, as compared with the vessels engaged in other branches of commerce?

A. A majority of them now are in the grain, coal and iron business, but in 1869 the majority was in the lumber and coarse freight business.

Q. What is the season of navigation here at Chicago; how long does it last, when does it begin and when terminate?

A. What they call the insurance navigation year is from April 1st at noon, till November 30th at noon, it usually extends with steam vessels till December 15 or 20 extension of insurance; but the insurance season is from April 1st to November 30, at noon.

Q. How much does the depth of the water in the Chicago river vary at different times during the season of navigation?

A. I think from extreme southwest to extreme northeast wind the difference would be two feet average that.

Q. Do you know whether the outer harbor, formed by the breakwater constructed by the government, was intended for commercial purposes?

Mr. Hamline. Object to that.

A. Which one do you mean.

Q. The outer harbor between the river and Park Row inside the government breakwater; whether it was intend for commercial purposes originally?

Mr. Hamline: Object to the question, as to his knowledge of the intention of the government. The intention of the government is expressed by some records which would be the best evidence.

A. It was intended for a harbor of refuge, so it is stated; called the harbor of refuge, but that is a misnomer.

Q. Do you know that the dock line was established by the Engineer Bureau of the United States inside the outer harbor to which docks might be constructed?

A. Yes, sir.

Mr. Hamline: Objected to as not proper re-direct examination, and as a leading question on direct examination.

A. I read Judge Harlan's decision on the question.

Q. If the outer harbor was intended for commercial purposes will you state how it can be made available for such purposes?

A. I never considered it valuable as far as that is concerned.

Q. Will you state whether or not, in your opinion, it can

Evidence before
Master.

be made available for commercial purposes without the construction of wharves and docks?

A. I don't think it could; there is now no front—sufficient frontage to pay for the outlay. You would have to make slips in order to get dock frontage enough to pay for the outlay. Besides, to use just the plain lake front you wouldn't consider it a safe place for a vessel to lay. Those slips in there a vessel could get safely where she couldn't lay in the winter winds.

Q. How would it be possible to obtain facilities for loading and unloading vessels in the outer harbor without the construction of docks and slips?

A. I wouldn't consider it possible with the present inlets, with the present sea and swell that there is there.

Q. But the question is, how could you utilize the outer harbor for commercial purposes without constructing wharves and slips; is there any other way of doing it?

A. I don't know of any other way.

3-22-147 Q. You know the situation of the 13th street pier, so-called, lying between 12th street, extending into the lake between 12th street and 13th street?

A. Well, not very closely. I know the 16th street one.

Q. The 13th street pier, I mean, the one extending out into the lake from the shore?

A. Yes, at the end of the gap there, as they call it?

Q. Just below Park Row.

A. Yes.

Q. You know it?

A. Yes, below 12th street there, don't know just how far it is. Don't know what street it is in line with. What we call the Illinois Central pier out there.

Q. Can you state whether that pier would, at all times and especially in case of strong gales from the north and northeast, furnish reasonable and safe accommodations for vessels? And what the effect would be when such a wind is prevalent, upon a vessel tied up at that wharf?

A. I don't believe you mean what you ask. But, with a north gale of wind from the north and northeast, a vessel has no business laying there, but it is a shelter for her providing the wind is south or southeast.

Q. Then why wouldn't it be a desirable place for vessels in case of north or northeast wind?

A. Vessel would be on the weather side of the pier.

Q. And how long a sweep in water is there between the river and that pier?

A. It is a mile from Madison to 12th, and pretty near another half-mile; about a mile and a half.

Q. Suppose there were a series of piers with intervening slips out from the shore between that pier and Randolph street, what effect would they have upon the use of the 13th street pier?

A. They would have the effect that those piers, providing you are on the south side of that you are all right; they would break the sea.

Q. What effect does the 13th street pier now have upon the outer harbor?

A. No effect except with the south-southeast wind; it makes water in there; it reduces the size of that entrance; that is, less room for sea to roll in there.

Re-cross examination.

Q. Did you tow material down there when that 13th street pier was built?

A. We were working for the Illinois Central there, boats I was connected with for a good part of three seasons.

Q. Whereabouts at 13th street?

A. For the 13th street and all along down south and around in the Illinois Central present basin.

Q. When was that; what years were those?

A. It was between 1869 and 1870.

Q. Didn't you know that 13th street dock was built in 1885?

A. Oh, that, yes; that Illinois Central; I knew that. We were not in on that. We were building around the Weldon slip; we were there.

Q. What year was that?

A. Don't remember what year it was.

Q. Since the fire?

A. My impression is it was after the fire.

Q. What did you do down there?

A. Merely just towing scows with the material backward and forward.

Q. Did you tow any scows full of gravel or debris, or anything of that kind, down there?

A. No, I think it was all material; piling and sheet piling and planking, &c. Guess what was debris was—that was sent by cars.

Q. And that was towed from the Illinois Central railroad?

A. Yes.

Evidence before
Master.

Evidence before
Master.

Q. They use that piling and sheeting, &c., to build those docks from time to time?

A. Fixing them; their protections and cribbing, &c.

Q. You recollect towing any boats down in there, or scows, along about 1882, 3 or 4?

A. Oh, I think they were south of that in 1882, 3 or 4; we did a good deal of work along that time.

Q. How far south?

A. Way down near Hyde Park; fixing up crib work all along there.

Q. As a matter of fact, you have been in the habit of doing all the towing the Illinois Central has required done?

A. We haven't done any work for them for several years now.

Q. Have you known of any work being done within the last few years?

A. No, I don't know.

3-22-148 Q. You knew the State of Illinois and the United States clamped down on their doing any work?

A. Yes. We done work for them at that time; since then there is other lines working for them.

April 5, 1895.

EDWARD VAN DOLSON, A witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. Please state your name, residence and occupation.

A. Edward Van Dolson; 3534 Rhodes avenue, Chicago; at present I am unemployed.

Q. How long have you resided in Chicago?

A. Continuously since 1861.

Q. Have you, during any portion of your residence here been actively engaged in navigation, if so, for how long and in what capacity?

A. Yes, sir. Well, I commenced here in 1855, then there was an intervening space of three years that I went to New Orleans; I returned in 1861, I have been here ever since.

Q. State what connection you had with commerce and navigation.

A. I have been in all positions on a boat, from cook to

master. Commenced as master for Mr. Dunham in 1863 and ran continuously until 1872, and have been connected with office work, collecting and other parts of the business till 1890, then left the business and commenced a year ago as referee, outside superintendent for the general towing companies, and held that position all last summer.

Evidence before
Master.

Q. Will you state whether your business has kept you generally informed as to the character, size, capacity and draft of vessels engaged in the commerce of the lakes?

A. Yes, sir.

Q. Will you state whether any changes have, and if so, what changes, have taken place with respect to the dimensions, capacity and draft of vessels engaged in lake commerce and arriving at and clearing from the port of Chicago since you have been here?

A. Well, the capacity has increased always; draft and size; the numbers, I think, have diminished, I think, in that period.

Q. Will you please state more particularly what has been the extent of the changes in the size, dimensions and capacity of vessels?

A. The vessels have went from 20,000 bushel vessels to some of the larger ones now carry 150,000 bushels of corn.

Q. How long has there been this tendency to increase the size and capacity of vessels?

A. I think about eight or nine years, since it increased materially.

Q. What has constituted and what still constitute the harbor of Chicago for commercial purposes?

A. Chicago river.

Q. Can you state approximately what is the number of miles of wharfage on the two sides of the Chicago river and its branches, within the limits of the city?

A. I should think about 25 miles.

Q. Do you know the location of the LaSalle and Washington street tunnels?

A. Yes, sir.

Q. At ordinary stages, what is the depth of water over those tunnels?

A. LaSalle street, about 17 feet, and the other one, Washington, 16 feet.

Q. Have these tunnels, to your knowledge, at any time interfered with the passage of vessels up and down the river?

A. Occasionally, yes.

Evidence before
Master.

Q. For what reason?

A. Low water.

Q. What is the depth of water at ordinary stages in the channel of what are known as the St. Clair flats?

A. I have no knowledge of that, sir.

Q. Do you know whether or not the depth of water in the Chicago river and along the shore of the lake in front of the city varies from time to time during the season of navigation?

A. Yes, sir.

3-22-149 Q. What is the extent of those changes and how are they caused?

A. Caused by the different winds, prevailing winds. I have seen a difference of three feet; from one extreme to the other.

Q. What is the depth of water in the channel of the Chicago river east of the LaSalle street tunnel at ordinary stages, and when the level of the water in the lake is not disturbed by unusual causes?

A. From 17 to 18 feet, ordinary stage.

Q. What effect, if any, will a strong wind from the south or southwest have upon the ordinary depth of water in the Chicago river and vicinity?

A. It blows the water out of the river and makes the water low.

Q. Having reference to the manner in which commerce in vessels is conducted on the lakes, and especially at the port of Chicago, what, in your opinion, is reasonable and necessary depth of water in the slip or dock for the accommodation of that commerce?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. There should be 16 feet, at least.

Q. Will you state whether 16 feet of water is sufficient to accommodate the large sized vessels?

A. No, there is some of the extreme size vessels draw more water.

Q. Are you advised of the tonnage of vessels now being built for commerce on the lakes, if so, what is the tonnage and what must be the depth of water necessary to float the vessels when loaded?

A. I only have newspaper report, that is all the knowledge I have; I know they are building them larger by that report, that is all.

Mr. Hamline: I move it be stricken out.

Q. You know what depth of water is necessary to float the vessels?

Mr. Hamline: Object to that because he hasn't testified he has any knowledge of his own, except newspaper report.

A. Oh, yes, they should have 18 feet.

Q. Have you general knowledge of the location of the piers and slips constructed by the Illinois Central Railroad Company between Randolph street extended eastwardly, and the Chicago river?

A. Yes, sir.

Q. Have you also knowledge of the location of the pier built by the Illinois Central, extending into the lake between 12th and 13th streets?

A. Yes, I know there is a pier there.

Q. And also the piers and slip at 16th street?

A. Yes, sir, I have a knowledge of that.

Q. Do you know the depth of water at the outer ends or along the sides of those several piers?

Mr. Hamline: Object.

A. Yes, sir.

Q. How did you acquire that knowledge?

A. From the United States chart.

Q. Assuming that the depth of water at the outer ends or sides of these structures does not in any case exceed 14 or 15 feet in the ordinary stage of water, do they or any of them, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is now transacted in vessels?

Mr. Hamline: Objected to as incompetent, immaterial and immaterial, also because there is no evidence that the depth of the water is not to exceed 14 or 15 feet; also he makes no specification which pier he speaks of.

A. No, sir.

Q. If you, as a riparian owner on Lake Michigan in the city of Chicago, or its immediate vicinity, were to construct a pier or wharf for the accommodation of lake commerce, having in mind the manner in which that commerce is now conducted, what would be the depth of water you would consider it necessary to reach in order that your pier or wharf should be available for the uses intended?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. Should have 18 feet.

Evidence before
Master.

Q. Do you know what is now called the outer harbor of Chicago?

Yes, sir.

3-22-150 Q. Assuming that the outer harbor included—
partially enclosed by the government breakwater on the south of the outlet of the Chicago river, will or may be used as a part of the Chicago harbor for commercial purposes, what depth of water, in your opinion, as a practical man, should the space thus partially enclosed have, in order to accommodate the commercial interests of the city, connected with the navigation of the lakes?

A. Should have 18 feet.

Mr. Hamline: I move that answer be stricken out as immaterial and irrelevant.

Q. Will you state whether that harbor can be made available for commercial purposes, without the construction of piers with intervening slips extending from the shore?

A. It can not.

Q. Do you know the depth of water on the average in that basin partially enclosed by the government breakwater south of the Chicago river?

A. Yes, sir.

Q. Please state what that depth is and whether it is or not uniform over the whole area?

A. It runs from 7 to 18 feet, and it is not uniform.

Q. Have you had any personal experience of the capacity of that outer harbor in connection with the vessel commerce of the lakes, if so, state what the experience was?

A. Well, my position that I held last year; I was stationed at the life saving building, and I was there every day and saw what went on of course, more or less.

Q. State where that life saving station is situated?

A. Situated on the south pier of the river north of the Illinois Central slips facing onto this inner basin.

Q. You are then, familiar, are you not, with what are called the north and south piers of the Chicago river?

A. Yes, sir.

Q. Does your recollection reach back to the time when vessels entering Chicago harbor were accustomed to sail around a sand bar as far south as Van Buren street?

A. Yes, sir.

Q. Thence northwest into Chicago river? Do you know whether or not the government breakwater, outside breakwater is located on that sand bar?

A. Yes, sir.

Q. Was there any difficulty in navigating that channel, if so, for what reasons?

A. There was, yes. It was a bad channel, shoal, and there was a good deal of sand used to roll in there those days.

Q. Do you remember when the direct channel was opened by the dredging of the mouth of the Chicago river?

A. About—I couldn't state the time definitely.

Q. About when?

A. I think it was about 1864.

Q. Do you know by whom, and at whose expense that work was done?

A. I do not.

Q. Do you know by whom the south pier was built?

A. I do not.

Q. Do you know whether or not the south pier as it now exists, extends across the old channel of the river?

A. Yes, sir, it does.

Q. How far beyond the Illinois Central pier does the south pier on the Chicago river extend east?

A. By the life saving station you mean?

Q. Yes.

A. Anywhere from 200 to 250 feet.

Q. Do you know whether any pier or dock or wharf has been constructed inside the outer harbor for commercial purposes by anybody except the Illinois Central Railroad Company?

A. I do not.

Q. Has there been, to your knowledge, any attempt on the part of the State of Illinois or the city of Chicago to improve the space within the government breakwater south of the Chicago river for uses as a commercial harbor?

A. I think not.

Q. Do you know the location of the breakwater constructed by the government northeast of the mouth of the Chicago river?

A. Yes, sir.

Q. Can you state its length and general direction?

A. Think it is about a mile or mile and a quarter long, runs southeast and northwest.

Q. What advantages are furnished to vessels by this breakwater?

A. It breaks off the sea off the mouth of the harbor and makes the water comparatively smooth at the pier.

3-22-151 Q. Do you know the depth of the water on the southwest side of that breakwater?

Evidence before
Master.

A. Well, yes.

Q. What is it?

A. From 20 to 30 feet, shoaler at the west end.

Cross examination by Mr. Hamline.

Q. You were sailing the lakes before the Chicago fire?

A. Yes, sir.

Q. When you used to round that buoy opposite Van Buren street—

A. Jackson street we used to.

Q. Opposite Jackson street?

A. Yes.

Q. You then steered a little west of the light house, did you not, on the end of the north pier?

A. We run due west on Jackson street till the light house on the pier bore about north half east, then we hauled right up to the light house.

Q. Then luffed in?

A. Close up to the pier to the west into the river.

Q. About how far west of the buoy would you usually run in running west on Jackson street?

A. We run in there pretty well. I should think we were probably six or seven hundred feet from the railroad track; that is, from the railroad breakwater.

Q. Six or seven hundred feet out east?

A. I think we ran up to six or seven hundred feet of the breakwater.

Q. Then tacked up?

A. Then hauled right up to this lighthouse.

Q. You have been aware of litigation going on for the last fifteen years, pretty near, between the Illinois Central and the City of Chicago and the State of Illinois?

A. Yes, sir.

Q. That would be pretty good reason why no docks were built in that basin?

A. Yes, sir.

Q. Mr. Ayer asked you if you knew the depth of the water at 16th street slip there; did you ever sound that down there?

A. No, sir; but I will explain, if you will let me. You remember that Mr. Booth built a boat down there called the Vernon; we were then in a towing company, and we went down to assist to get her off in case she stuck on the ways,

and I went down there, and we noticed her on that pier; there she struck the stone; that is the way I judge the depth of the water. Tug I was on; she drew 7 feet of water, and a little swell on, and she struck the corners along side of the break-water.

Q. Did you ever make soundings off 13th street dock?

A. No, sir.

Q. Don't know the depth of the water there?

A. No, sir; nothing only from the chart.

Q. Did you ever make any soundings of the depth of the water in the Illinois Central slip at Randolph street?

A. Up in the outside slips?

Q. Yes.

A. No.

Q. Mr. Ayer spoke about boats now being built of unusual size. As a matter of fact, aren't there a great many boats now being built that are not of unusual size?

A. No, sir; that is, they all run to the large size.

Q. They all do?

A. Yes, sir; that is a fact.

Q. Shipyards everywhere?

A. Ninety thousand bushel vessel, though, ain't no use at all.

Q. How many feet of water would a boat drawing 20,000 bushel of wheat take?

A. They used to run from 10 1-2 to 12 feet, according to the build; flatter the boat, the less water she would draw.

Q. This tendency for building large boats has been coincident with the improvement in the manufacture of steel and iron, hasn't it?

A. Yes, sir.

Q. Late years?

A. Yes, sir.

Q. Well, along the time of the Chicago fire; or, say about the year 1860, what was the tonnage of the grain boats—20,000 bushels?

A. Yes, about 20,000 bushels.

Q. You recollect about how large grain boats they built, say up to 1885?

A. Well, the boats at that time run from fifty to seventy thousand bushels.

Q. How many feet of water will they draw?

A. Well, it depends on the build of them. They will draw 14 feet, 14 and a half—depends on, of course, the shape, whether flat or sharp.

Evidence before
Master.

Evidence before
Master.

3-22-152 Q. I suppose the lumber boats would draw less than the average—than the grain boats?

A. Yes, sir.

Q. Their cargoes were lighter?

A. Yes, sir.

Q. Prior to the Chicago fire, I dare say the majority of the number of boats were lumber boats, were they not, in the Chicago harbor?

A. Yes, sir; they were.

Q. Largely in the majority?

A. Yes, sir; from the fact that they all do short trade on Lake Michigan.

Q. This channel that you used to go up there after you rounded the south buoy, was pretty near the shore, wasn't it, to sail north and south on?

A. As I said, about 700 feet, where we made the turn and bore out north, little east of north, and took it a little farther away.

Q. And in case of any wind off the lake from the east, it would make it too close to the shore to be comfortable, wouldn't it?

A. It was a hazardous passage, of course, up there.

Q. And that is one of the great reasons why they cut the channel through at the mouth of the river; the north channel?

A. Yes, sir.

Q. So as to enable boat to come right out from the body of the lake right into Chicago river?

A. Yes, sir.

Q. I suppose a riparian owner on the shore of a large body of water wants to use his property in conjunction of commerce carried on in that water, would seek to get to the deepest water by the shortest means would he not?

A. Certainly.

Q. That would be economy of time, labor and expense, would it not?

A. Yes, sir.

Q. Do you recollect the way the Illinois Central land used to be before the Chicago fire; in 1869, before these three slips were built out there that now extend out north of Randolph street?

A. I have general knowledge.

Q. You recollect the elevators—there are two elevators on the flat-iron piece of ground there?

A. Yes, sir.

Q. Two slips running north and south?

A. Yes, sir.

Q. Well, now, supposing that land was—was no slips there at all; no elevators, and you want to utilize that land in conjunction with the Chicago harbor, would you build slips in that land so as to connect it directly with the Chicago river, or would you thrust piers out directly east into the waters of Lake Michigan?

A. I presume I would do just as they did, build a slip.

Q. When you got those slips built that land would be in direct connection with the commerce of the Chicago harbor, would it not?

A. Yes, sir.

Q. As much so as though it has a pier sticking a mile out into Lake Michigan?

A. Yes, sir; better.

Q. You are aware of the fluctuation of the depth of the water in the Chicago harbor and the lake immediately outside between the season of navigation and no navigation, are you not?

A. Nothing more than what I heard here. I don't go down there in the winter.

Q. You haven't studied the government charts to show how the water has been for the last 30 or 40 years?

A. No, sir, I have not.

Q. Since 1872 you haven't been managing any boat, but have been collecting bills, &c?

A. Been managing boats and owning boats; have owned boats until 1890. I always carry a license along so in case I have to go aboard of a boat I am prepared.

Q. Ain't there a boat named after you?

A. She used to be; used to belong to Mr. Donaldson.

Adjourned to Saturday, April 13, at 10 o'clock a. m.

Evidence before
Master.

3-22-153

April 13, 1895.

Met pursuant to adjournment.

Present, as before.

W. L. BROWN, a witness called on behalf of the defendant,
being first duly sworn, testified as follows:

Direct Examination by Mr. Ayer.

Q. Please state your name, residence and occupation.

A. William L. Brown, Evanston, Illinois; President Chicago Ship Building Company.

Q. How long have you resided in Cook County?

A. Since 1846.

Q. Where is the business of your ship building Company carried on?

A. On the Calumet river at what was formerly called South Chicago.

Q. How long have you been engaged in that business, ship building?

A. Five years.

Q. How large an establishment do you have charge of?

A. Our yards occupy 21 acres, we employ from 40 to 1,200 men.

Q. What kind of vessels do you construct in your yard?

A. So far, we have constructed steel entirely.

Q. Do you know the number of ship yards around the great lakes between Chicago and Buffalo that are and have been engaged in the construction of iron and steel vessels, if so, how many and where are they?

A. Eight.

Q. State where they are.

A. One at West Superior, Wisconsin; one at Bay City, Michigan; one at Detroit; one at Toledo, Ohio; two at Cleveland; one at Buffalo, New York; one at Chicago.

Q. Have you knowledge as to the kind and quantity of construction that has been going on for some years past in these different yards?

Mr. Hamline: Objected to as immaterial not within the issues of the case.

Q. General knowledge. How many steel and iron vessels have been constructed in your yard here in South Chicago?

Mr Hamline: Same objection.

Evidence before
Master.

A. We have now under construction our latest number, 16, but of that number, 16, one was a caisson for our dry dock.

Q. What is the dimension, capacity and draft of the vessels you are now constructing?

A. We are constructing two 380 feet keel, 48 feet beam, 28 feet depth. We are constructing one 352 feet keel, 44 feet beam and 26 feet depth; we have just completed the construction, or have about completed the construction of 302 feet keel, 40 feet beam and 24 feet depth, two of them are steamers, one a barge without spars, and two tow barges with spars. They are built with a view of the 20 foot channel, and when that is so it can be used they can be loaded to 18 feet, as it is, they are intended largely for the Lake Superior trade where they can't be loaded to a greater depth than 14 and a half feet.

Q. What changes, if any, have taken place in respect to the dimensions, capacity and draft of vessels engaged in the commerce of the lakes during the last ten years?

Mr. Hamline: Objected to on the ground of incompetency, and immaterial.

A. It would be difficult for me to specifically answer that question. In a general way, however, the records have been kept very carefully of that and are easily obtainable.

Mr. Hamline: I object to the testimony of the witness that depends upon any records, as the latter are the best evidence; and to any testimony at all, because it doesn't appear that he has had any knowledge or experience prior to five years ago.

Q. Having reference to the size, capacity and draft of the vessels which are now under construction for use on the lakes, and which have been in use for some years past, 3-22-154 what, in your opinion, is the reasonable and necessary depth of water in a slip for the accommodation of those vessels?

Mr. Hamline: Object to the question on the ground of being immaterial, irrelevant and incompetent, and also on account of the fact that it doesn't appear from the testimony of this witness that he has any knowledge of the navigation or commerce of the lakes prior to five years ago, or necessary depth of water.

A. About 20 feet.

Q. What is the necessary depth of water to float these large sized vessels when loaded?

Mr. Hamline: Same objection.

Evidence before
Master.

A. When loaded to 14 and a half feet, 16 feet; when loaded to 18 feet fully 20 feet.

Q. If you, as a riparian owner on Lake Michigan in the city of Chicago, or its immediate vicinity, were to construct a pier or wharf for the accommodation of lake commerce, having in mind the character and size of the vessels now employed in that commerce, what would be the depth of water you would consider it necessary to reach in order that your pier or wharf should be available for the purposes intended?

Mr. Hamline: Objected to as immaterial, incompetent and irrelevant.

A. Not less than 20 feet.

Cross Examination by Mr. Hamline.

Q. You are engaged in other business besides the ship building business, are you not?

A. Yes.

Q. What is that business?

A. Pig iron and iron ore; manufacturing pig iron and mining and sale of both products.

Q. Are you one of the active managers of the ship building business, or are you simply stockholder and director?

A. I am one of the active managers.

Q. Did you ever learn the trade of ship building?

A. No.

Q. Did you ever have anything to do with building ships prior to the organization of this company?

A. Not as a builder.

Q. All of the boats that you built down there are constructed of steel, are they not?

A. Yes, all that we have so far constructed have been constructed of steel.

Q. Your works are near the works of the Illinois Steel Company, are they not?

A. Yes.

Q. Down at South Chicago?

A. Yes.

Q. You are familiar more or less with the Illinois Steel Company?

A. I have some familiarity with the business of the Illinois Steel Company.

Q. They take large quantities of ore from the Lake Superior region, do they not, in their business?

A. Yes.

Q. You have occasion in your business to sell them more or less ore, have you not?

A. Yes.

Q. So that you are familiar with—more or less familiar with their receipt of ore from the Lake Superior region?

A. In a general way.

Q. Now these barges that you speak of as carrying 14— with a draft of 14 and a half feet, what particular trade are they constructed for, or adapted for?

A. They are constructed to cover both the Lake Superior and the lower lake trade, but owing to the depth of water in the "Soo" canal at present, they can't get through from Lake Superior drawing over 14 and a half feet, hence are unable to carry so large cargoes as they would be able to, and as they now carry when they are loaded at Escanaba for return to Chicago.

Q. Then 14 and a half is the limited draft of all vessels going into the Lake Superior country, is it not?

A. Yes, as I understand it.

Q. How long has that been the draft at the "Soo" canal?

A. I don't know.

Q. Shallower than that a number of years ago, was it not?

A. My impression is that it was.

3-22-155 Q. You don't recollect the time when it was deepened to its present depth?

A. No.

Q. Do you know the depth of the water at St. Clair Flats, through the canal there?

A. Not positively enough to make the statement, only generally.

Q. All commerce going east of Detroit from Chicago must pass through the St. Clair Flats and canal, must it not?

A. Yes.

Q. And all lake commerce going up into Lake Superior from Chicago or the east must pass through the "Soo" canal, must it not?

A. Yes.

Q. You have five large boats completed, or about completed, at your yards, as I understand?

A. Yes.

Q. How many boats have you launched during the five years of operation?

A. Thirteen, including the caisson.

Evidence before
Master.

Q. That includes any of the five that I have inquired about?

A. Two of them are launched, three on the stocks.

Q. This matter of constructing vessels of steel is something that has developed within the last five or ten years, has it not, here on the lakes?

A. Within the last 10 years.

Q. I suppose that is due to the improved process of manufacturing steel, cheapness with which it can be made, adaptability for marine purposes, is it not?

A. Yes, I should draw that conclusion.

Q. That development has all taken place within the last ten years?

A. My impression is that it has all taken place within ten years, that is, so far as steel is concerned; previous to that there had been some iron ships built, but none of any consequence.

Q. You recollect the Wheeler yards up there at Bay City?

A. I know there are yards there, I never have seen them.

Q. You don't recollect about when they first began building iron and steel boats?

A. Not positively.

Q. Do you know of their building wood boats very extensively prior to that time?

A. Yes, generally, by the records. Not, of course, to the same extent that I know now, because at that time I wasn't giving the matter any particular attention.

Q. You know generally they have been a large ship building concern for a good many years past?

A. Yes.

Q. How far is the Calumet river from Chicago?

A. About eight miles, I think.

Q. Are your works on the lake or on the river?

A. On the river.

Q. How far up is the Calumet river navigable, do you know?

A. No, I don't.

Q. Do you know of boats going up to the railroad track of the Illinois Central?

A. The Illinois Central doesn't cross the Calumet river that I know of.

Q. I will ask you if you know how far navigation is carried on up the Calumet river?

A. No, I don't.

Q. The United States engineers at work in the Calumet river now?

A. I am not certain about that.

Q. What is the depth of the water in the Calumet river opposite your works?

A. I am not clear about that.

Q. Do you know the depth of the water at the mouth of the Calumet river?

A. No.

Q. Do you know whether or not navigation goes up a mile or so beyond your works at the Calumet river?

A. My impression is that it does.

Q. Know what depth of water is a mile above your works in the Calumet river?

A. No.

Q. These large boats that are being built now days are very much larger than any boats that were constructed prior to 3 or 4 years ago, are they not?

A. Yes.

Q. They are so large some of them have fallen in two, haven't they, in severe storms?

A. There is no record to prove that.

Q. That is the general supposition, is it not?

A. There is a wide difference of opinion as to 3-22-156 that.

Q. In the case of Gilchrist and Western Reserve?

A. Wide difference of opinion as to that.

Q. That opinion is pretty generally entertained, is it not?

Mr. Ayer: Object to the question.

A. No there is, I think, fully as many people who do not believe it as those who do.

Q. But on the contrary there is about as many who do believe such is the case, as those who do not?

Mr. Ayer: Objection.

A. I am doubtful about that.

Q. Well there are a good many people that have that opinion, are there not?

A. I think there are.

Q. I suppose you gentlemen would build boats a thousand feet long and fifty feet draft, if you could find men who would order them, and deep enough water, would you not?

A. I am doubtful about that.

Q. About your capacity to do it?

Evidence before
Master.

Mr. Ayer: Wasn't the question of capacity a question of willingness?

Q. Do you think you would be capable of building boats that size?

A. Not with our present facilities.

Q. You are capable, however, of building boats very much larger than the boats now on the stocks, are you not?

A. Very little, at present.

Q. As a matter of fact, these very large boats that have been built within the last 2 or 3 years, were boats of a size not thought of five years ago on the lakes, were they?

Mr. Ayer: Object to that; how can a witness state what was thought of; perhaps he can if he knows they were thought of.

A. I think they were thought of.

Q. They were not known, were they, on any of the lakes?

A. There was no such construction.

Q. Do you know the depth of water off the Illinois Central docks north of Randolph street?

A. No.

Q. Know the depth of the water at, around or off the Illinois Central dock at 13th street?

A. No.

Q. Know depth of water off the dock at 16th street belonging to the Illinois Central?

A. No.

Q. Know the depth of water in the Chicago river at La-Salle street tunnel?

A. No.

Q. Know the depth of water at the mouth of the Chicago river.

A. No.

Q. Do you know the depth of water anywhere in Lake Michigan?

A. No.

Q. Have you ever navigated a boat yourself?

A. No.

Q. Have you ever had anything to do with any other boats besides these boats that your company is building?

A. I have had ownership in other boats.

Q. You never navigated them?

A. No.

Q. When did you first become an owner of a boat; how many years ago?

A. My recollection is about 25 years ago.

Evidence before
Master.

Q. Do you recollect how much water it drew?

A. No.

Q. Do you recollect the draft of water of any boats that you were interested in prior to 10 years ago?

A. No.

Q. You were interested in the Christopher Columbus, were you not; boat that ran from the World's Fair up to Van Buren street?

A. Yes.

Q. Recollect the draft of that boat?

A. Not positively.

Q. If I would tell you it was ten and a half feet would you think that was right?

A. No, I wouldn't; I would think it was more than that.

Q. That was an extremely large boat, was it not?

A. No, she isn't an extremely large boat.

Q. About how long is she?

A. 365 feet.

Q. Have you ever launched a boat longer than that?

A. No.

Q. You have built large boats, have you not?

A. We are building large boats now.

3-22-157 Q. Have you got any boat on the stays larger than that, with the exception of these two steamers 380 feet in length?

A. No.

Q. Do you recollect the width of the Christopher Columbus?

A. No.

Q. You were interested in the pier that was built during the World's Fair opposite Van Buren street, were you not?

A. I was interested in seeing it built; I had no interest in the pier.

Q. You were interested in using it, were you not?

A. Yes.

Q. You recollect how far that projected into the waters of Lake Michigan?

A. Not positively.

Q. The Christopher Columbus used to tie up there, did she not?

A. Yes.

Q. Run from there down to the World's Fair and back?

A. Yes.

Q. She also used to run up to Milwaukee subsequently?

A. Yes.

Evidence before
Master.

Q. In the passenger carrying trade?

A. Yes.

Q. Do you know whether or not the Christopher Columbus is the largest passenger boat that ever came into this port?

A. I think she is.

Q. Can you tell approximately how many feet the World's Fair pier there at Van Buren street went out into Lake Michigan?

A. My recollection is it was about 1,400 feet.

Q. Quite a number of steam boats used to tie up at that wharf, did they not?

A. Passenger boats, yes.

Q. On the side as well as at the outer end?

A. Yes.

Q. The customary landing of the Christopher Columbus was on the north and south side of that pier, rather than the end, was it not?

A. Yes.

Q. About half way up the pier?

A. Yes, that is my recollection.

Q. When she went to the World's Fair was she not accustomed to go out through the south entrance at the outer harbor, as well as the east entrance?

A. No.

Q. Coming back did she not come through the south entrance?

A. No.

Q. Always through the east entrance?

A. Almost without exception, and I think without any exception.

Q. In going north to Milwaukee would she go out through the east entrance, or go up to the north entrance?

A. Both ways.

Q. Then she would pass directly in front of the Illinois Central docks at Randolph street and between them and the east breakwater?

A. Yes.

Q. Starting from her landing place at Van Buren street?

A. Yes.

Re-direct examination.

Q. Do you know anything about the form or design of

the Christopher Columbus—the exterior form; have you general knowledge on that subject? Evidence before Master

A. Yes, I have a general knowledge.

Q. Do you know whether she was constructed with a keel?

A. She has no keel.

Q. Do you know whether she is or not, comparatively, a flat bottom vessel?

A. Comparatively, yes.

Q. What was the vessel constructed for, if you know, especially?

A. She was constructed especially for the World's Fair traffic.

Q. Where was she built?

A. West Superior, Wisconsin.

Q. When you say World's Fair traffic, do you mean passenger traffic?

A. Passenger traffic.

Re-Cross Examination.

Q. She was built by Captain MacDougall, was she not?

A. She was built by the American Steel Barge Company, of which Captain MacDougall is general manager.

Q. And they build boats known to the modern—since 1885, as Whaleback?

A. Yes.

Q. And such was the structure of this boat?

A. Yes.

Q. Will you describe what the Whaleback is?

A. I don't care to attempt to.

Q. Is it not a boat, the bulk of which lies beneath the water and the top of which is rounded off like the back of a whale, presenting very little resistance to the 3-22-158 waves that may dash above the water?

A. That is only true when loaded; unloaded, or rather, light, I think it is about as much above the surface of the water as below.

Q. But the intent of the Whaleback is to submerge itself under water so as to offer as little resistance to the dash of the waves as possible?

A. That is a question that I don't feel competent to answer.

Evidence before
Master.

April 13, 1895.

W. I. BABCOCK, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct Examination by Mr. Ayer.

Q. Will you please state your name, residence and occupation?

A. W. I. Babcock. Chicago; Manager of the Chicago Ship Building Company.

Q. What is your profession?

A. I am an engineer and naval architect.

Q. Where were you educated?

A. At the Rensselaer Polytechnic Institute, of Troy, New York.

Q. When did you graduate?

A. 1878.

Q. What experience have you had in the designing and constructing of vessels?

A. Since my graduation at Troy I have been either in the ship yard or in a yard of vessels, operating a line all the time, except one year—16 years in all.

Q. In what ship yards have you been employed?

A. The John Roche and Son, Chester, Pennsylvania; Union Dry Dock Company, of Buffalo, and the ship yards here.

Q. How long have you been employed in this ship yard here at South Chicago?

A. Since we started the yard, that is about five years ago.

Q. And, as I understand you; you are the general manager of the business?

A. Yes, sir.

Q. And the naval architect?

A. Yes, sir.

Q. Have you any knowledge, and if so, what, of other ship yards situated at different points around the lakes?

A. I think I have been in every ship yard on the lakes except the present yard at West Superior; I haven't been there since they moved to their present location. When the yard was in Duluth I was there.

Q. Will you state how many of these yards there are, and where they are situated?

A. There are eight metal building yards on the lakes, one

at West Superior, Wisconsin; one at West Bay City, Michigan; one at Detroit, Michigan; one at Toledo, Ohio; two in Cleveland, Ohio, one in Buffalo, New York, and one here. There is another yard in Buffalo that has built some very small metal vessels, but we don't count it as one of the metal yards of the lakes, it is what is known as David & Bell Company. Don't think they have ever built anything that is as much as 100 feet long.

Q. Have you knowledge as to the character, size, capacity and draft of vessels which have been during the past few years constructed, and are now being constructed in these different yards?

Mr. Hamline: Object to so much of the question as calls for information and knowledge since the year 1882.

A. Yes, sir.

Q. Will you state what kind of vessels have been constructed here in the Chicago yards of which you have management and what is the character and size of the vessels now under construction?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. There have been, including the vessels now under construction, 15 vessels constructed in our yard in Chicago; of the 15 vessels, one was a caisson for the dry dock, 3-22-150 one was a dump scow, one was a small steam yacht, three are tow barges and the rest are steamers.

Q. Will you now please give the dimensions, capacity and draft of these vessels?

A. I don't think I could give you that exactly from what data I have here, I could perhaps give it pretty close.

Q. Well, we will take your best knowledge.

A. The first two vessels were duplicates, 292 feet keel, 40 feet beam, 24 1-2 feet deep; the draft I can't give exactly because, of course, that depends on where they run. They are capable of being loaded to 18 feet draft; the tonnage is about 2,400 apiece, I think about 2,430, that is my recollection. The next vessel is 330 feet keel, 45 feet beam, 24 and a half feet deep, capable of being loaded to 18 feet draft, tonnage 2,957.

The next one was 230 feet keel, 37 feet beam, 19 feet deep, capable of being loaded to 15 feet draft, with tonnage of 1,264.

The next two were duplicates, 287 keel, 41 beam, 24 feet 7 1-2 inches deep, capable of loading to 18 feet, tonnage of 2,330 each.

Evidence before
Master.

The next was 275 keel, 42 beam, 24 1-2 deep, draft 15 feet and tonnage 2,945.

The next was 328 keel, 44 beam, 27 1-2 deep, capable of loading to 20 feet and tonnage 3,093.

That includes all the vessels that we have finished; those in the yard now are two vessels 302 feet keel, 40 feet beam, 24 deep, capable of loading to 18 feet and tonnage of 2,237 each.

One vessel 362 keel, 44 by 26, capable of loading to 20 feet and tonnage—she has not been measured; I can't give you the tonnage, probably be 2,600.

And the two steamers now on the stocks are 380 by 48 by 28, 20 feet draft and about 3,600 tonnage.

Q. These vessels that you have described—do you know whether they are used or intended for use in the commerce of the lakes?

A. Yes, sir; all of them.

Q. Have you any knowledge in regard to the size and dimensions of vessels now in use which have been constructed in other yards than you have mentioned, or that are now in process of construction there for lake navigation?

A. Yes, sir.

Mr. Hamline: Object.

Q. If so, state the facts within your knowledge.

Mr. Hamline: Object as incompetent, immaterial, not competent to any issue in the case.

Q. State in a general way.

A. If you let me speak in a general way; most of the vessels in the other yards now are about the same as the vessels that we are building. The two lake steamers we are building, the two big ships, are larger than anything in any other yard just now. The papers have reported within two days that Wheeler, of Bay City, will build a ship the same size as ours. I don't know whether that is so or not.

Q. Do you know how many vessels are in use now, of this large class?

A. Well, I will have to ask you what you mean by "large vessels." You mean, say of 2,500 tons?

Q. Yes, drawing over 15 feet of water.

A. All the old boats draw 16 to 17 feet, all the wooden boats that leave Chicago draw over 16 feet ordinarily.

Q. Take all the steel vessels that you know anything about that are engaged in the commerce of the lakes.

A. I think altogether there were last year 165 metal vessels on the lakes, steel and iron.

Q. What is their average draft, when loaded?

A. That would be impossible to state, because that includes small vessels.

Q. What is the range of draft?

A. The range would be probably from 10 feet up to 18. Some of them would be less than 10 feet, passenger boats.

Q. Having reference to the size and character of the vessels now in use upon the great lakes, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of those vessels?

3-22-160 Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. Not less than 20 feet.

Q. If you, as a riparian owner on Lake Michigan in the city of Chicago or its immediate vicinity, were to construct a pier or wharf for the accommodation of Lake commerce, having in mind the manner in which that commerce is now conducted, what would be the depth of water you would consider it necessary to reach in order that your pier or wharf should be available for the purposes intended?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. At least 20 feet.

Cross-Examination by Mr. Hamline.

Q. Mr. Babcock, how long were you at John Roche's plant?

A. About seven years.

Q. Then you left there about 1885?

A. In 1885.

Q. You had no knowledge or familiarity with the great lakes prior to that, did you?

A. No, sir.

Q. You then went up to Buffalo and was connected with the dry dock there?

A. I went to Buffalo in 1887 as superintendent of the yard there, which is a building and a repair yard both.

Q. That was your first familiarity with the navigation on the great lakes?

A. Yes, sir.

Q. Was this dry dock up the river at Buffalo, or on the margin of the lake?

A. It was in the river.

Evidence before
Master.

Q. About how far from its mouth?

A. I should say about one mile.

Q. Do you recollect the depth of the water in the river opposite the dry dock?

A. There was—of course the depth any place around the lakes depends very much on the stage of water at the time you take it; in other words, the water level varies with the wind; may vary as much as 2 feet in a day.

Q. The average depth?

A. Probably be in the neighborhood of 15 or 16 feet.

Q. This dry dock take and repair the largest size lake vessels?

A. At that time; yes, sir.

Q. How long were you at Buffalo?

A. I was in Buffalo two years and a half.

Q. Until about 1890?

A. Until the fall of 1889.

Q. Then you came up here to Chicago?

A. Came here.

Q. I understand you to say that these two steamers, with a length of 380 feet, are the largest boats that have ever been constructed upon the great lakes?

A. Yes, sir.

Q. As a matter of fact, prior to the construction of these two boats, your yard never built a boat longer than 330 feet, did it?

A. Not longer than 330 feet keel; you understand, of course, the over all length is more than that.

Q. And, with that exception, you never built a boat longer than 300 feet, did you?

A. We built one 328; the others were under 300.

Q. The first boat you ever built was 292 feet length of keel?

A. Yes.

Q. That was completed about what year?

A. In 1891.

Q. Launched in 1891?

A. Launched and finished in 1891.

Q. At that time that was about the largest boat ever built on the lakes, was it not?

A. Well, that was one of the larger class; she wasn't the largest.

Q. Well, within short range—

A. Was two boats built in Buffalo that were consider-

able larger than that, but those boats were remarkably larger for the time when they were built; that is, they were considerably ahead of the usual run of boats. Of course the size of the boats had been increasing very rapidly and very constantly.

Q. This increase in the size and depth of boats has all been within the last, say 5 or 7 years, has it not?

A. Yes, speaking generally.

Q. And it has been coincident with the development of the steel and iron industry, has it not?

A. Well, generally, yes, although that has been only one factor of the—

3-22-161 Q. And these yards you spoke of, you referred to as metal yards; all of these yards?

A. Yes, sir.

Q. You did not want to be understood as testifying as to any shipyards excepting yards that build ships of metal?

A. That is all.

Q. You say there are about 165 metal boats on the great lakes, of all sizes. You know how many boats there are on the great lakes constructed of material other than metal?

A. Yes, sir, I can give you the figures for the last year. In 1894 there were 3,341 vessels altogether, and of those 190 were constructed of metal.

Q. Do you recollect the Gilchrist?

A. I never saw her, I know.

Q. The Western Reserve?

A. Yes, sir.

Q. They were metal boats, were they not?

A. Steel boats.

Q. Built by Wheeler, or by the Cleveland—

A. They were built in Cleveland by the Cleveland Ship Building Company.

Q. They disappeared in the storms on the great lakes about two years ago, did they not?

A. Three years ago, I think.

Q. About how large were those boats?

A. Three hundred feet keel, 41 feet beam, 24 1-2 deep; I think they were the same size; that is my recollection.

Q. Twin boats, weren't they?

A. I think so.

Q. And they were built of modern construction—steel?

A. Yes, sir.

Q. Do you recollect that the general conclusion was in

Evidence before
Master.

regard to the cause of those boats foundering in those storms?

A. Well, the Western Reserve, it was generally conceded that she broke in two from improper handling.

Q. How about the Gilchrist?

A. The Gilcher?

Q. Was that the Gilcher?

A. Yes; W. H. Gilcher. The Gilcher—never anything known definitely about that; nobody was saved. There is no sign what did cause the disaster. Within the last month there has some records from the Gilcher been found that shows signs of burning. Some people think now that the boat got afire and became helpless in the storm, and naturally very quickly went down.

Q. Was it not the opinion of a great many people interested in marine matters and marine insurance matters, that the Gilcher broke in two also.

A. You could hardly call it an opinion; I think undoubtedly a great many people surmised that from the experience of the other boat.

Q. These large steamers that you have on your stocks are about as large as the present capacity of your yards, are they not?

A. They are very nearly up to our capacity; yes, sir.

Q. And they are larger than the capacity of most of the yards, are they not?

A. No, sir.

Q. Why is it, then, that the other yards haven't built as large boats as these?

A. They haven't had the orders.

Q. You think there is a boat that Wheeler intends to build at Bay City that will be as large as these boats?

A. It is so reported in the papers within a day or two; about the same size as these boats.

Q. If you had orders for a boat to be constructed 300 feet long, with a beam of 80 feet, approximately, and a draft of 30 or 40 feet, you would build it, wouldn't you?

A. We would build it if we got money enough for it, and was sure we would get the money.

Q. If you were guaranteed the price, you would willingly build it?

A. If we were guaranteed the price we would willingly build it; yes, sir. We would make our own price naturally for that kind of work.

Q. And these boats that you are building now, and have been building, are all built for a deep draft trade, and for a larger trade than the outlet to the lake system east of Detroit, and the Superior trade will permit of boats going, are they not?

A. Well, one of the boats we have built is capable of going through the Welland Canal on Lake Ontario; none of the others could; the others are limited by Buffalo in their trip east.

Q. They are limited by the St. Clair Flats in their trip east?

A. Only on the draft; that don't limit the length of the beam of the boat.

3-22-162 Q. But the draft, I say?

A. Well, yes, you can say that they are limited to the amount that they load them to if they have to go down through Lake Erie.

Q. They are limited by the "Soo" canal as to the draft they will load to in going up into Lake Superior, are they not?

A. Yes, sir.

Q. So that the capacity of those boats over the present capacity of the waters through which they will navigate, is made with reference to the future entirely?

A. Yes, sir. Boats haven't been loaded to their capacity trading to Lake Superior, for several years, there hasn't been water enough there.

Q. Because there isn't water?

A. Because there isn't water.

Q. Fourteen and a half feet is the water at the "Soo," isn't it?

A. It varies from 13 to 15, it is generally considered about 14 and a half feet is an average. The Canadian lock will probably be open this year, that is to give 17 feet.

Q. As it is now it is from 13 to 15 feet?

A. Thirteen to 15 feet—oh, very nearly that, it will not go over 15 feet.

Q. All of these boats you are building are designed, however, to be engaged in the Lake Superior trade, or the eastern lake trade, east of the St. Clair Flats, are they not?

A. Yes, sir.

Q. Do you recollect the Christopher Colombo, whatever the name was?

A. Yes, I am familiar with the boat.

Evidence before
Master.

Q. You recollect its carrying passengers up to Milwaukee?

A. Yes, sir; I know that she did.

Q. Is it within your knowledge that it transported to Milwaukee on excursions from Chicago, the largest number of people ever carried upon a passenger steamer on Lake Michigan?

A. Well, it is not within my direct knowledge, I think very probably that is true, don't think there is any question about it.

Q. You keep more or less track of these things, do you not?

A. Yes, sir.

Q. That is your general understanding, is it not?

A. That is my understanding.

Q. What has become of that boat, do you know?

A. Oh, she is down at our ship yard now, laid up there.

Q. While she was in commission, she used to tie up at the World's Fair dock at Van Buren street, did she not?

A. She did the first season that she ran, that is when she ran to the Fair. Last year when she ran to Milwaukee, she tied up at the pier at Randolph street.

Mr. Ayer: Illinois Central pier?

A. I don't know who owns it, it is the pier that is the north end of the open waters.

Q. Pier that juts out from Randolph street?

A. Yes, reached by going across the viaduct.

Q. She ran from there out through the north entrance to the harbor of refuge?

A. I think usually, yes; I have seen her coming in and going out.

Q. That is all south of the south line of the Chicago river?

A. I think so, yes, sir.

Q. Have you any knowledge of the depth of water off the Illinois Central piers north of Randolph street?

A. You mean on the south side?

Q. Yes.

A. Not direct. I know I have been told that the Whale-back would touch there once in a while, and she probably draws, when loaded with coal and passengers, about 13 feet aft.

Q. You don't recollect whether her draft is 10 and a half feet?

A I should say it was more, though I wouldn't state positively; she swings a 14 foot wheel, and it is a little out of water—the blades are a little out of water when she is quiet. I presume that she draws about 12 feet.

Q. About 12?

A. Yes, that is, aft, she draws much less than that forward.

Q. Do you know anything about the depth of water off the Illinois Central dock at 13th street or around it?

A. No, sir.

Q. Know anything about the depth of water around Illinois Central dock at 16th street slip there?

A. No, sir.

3-22-163 Q. Know how far the Calumet river is navigated by boats engaged in lake commerce, above its mouth?

A. Not positively, though I should say 6 or 8 miles, by small schooners only.

Q. Lumber vessels?

A. Lumber vessels, yes.

Q. They are engaged, however, in commerce on the lakes?

A. Yes, I think—

Q. Does that carry it up about as far as the Illinois Central track or bridge?

A. No, I don't think so. I think the Illinois Central track is west of the main river.

Q. As I now understand it, the government are now dredging the main river up as far as Hammond and the Illinois Central tracks are considerably west of Hammond. Do you recollect what the depth of water was at Hammond, as dredged by the government?

A. Don't think they have finished it yet. There is about 18 feet of water past our ship yard now, the upper part of the river I am not as much interested in.

Q. Do you recollect whether or not, as a matter of fact, it is not a 7 foot channel they are trying to make at Hammond?

A. That I couldn't answer.

Q. The town of Hammond that you speak of lies up above where Wolf Lake and Calumet Lake empty into Calumet river?

A. According to the map, yes, I don't know from any direct knowledge at all.

Evidence before
Master.

Q. You recollect whether or not there are any boats engaged in lake commerce that go into Wolf Lake?

A. I think not, though I am not positive.

Q. Know whether or not there are any boats engaged in lake commerce that go into Lake Calumet?

A. I think sometimes a lumber vessel goes in there, but I am not certain about that.

Q. Know the depth of water in Lake Calumet?

A. Only from hearsay. I should say not over 5 or 6 feet, but I don't know positively.

Q. You don't know the depth of water in the Calumet river at any point above, that is, away from the lake above your ship yard?

A. Not from any direct knowledge, no, sir; I know the dredges are up to, have gone through the 106th street bridge, which is half a mile above us, we are at 101st street.

Q. How far from the mouth of the river are your yards?

A. Something over a mile, about a mile and a quarter.

Q. You know how long the present depth of water has been maintained at the "Soo" canal, how many years?

A. I think that the present lock was put in service in 1882.

Q. You know the depth of water about that time?

A. Before that I think it was 9 or 10 feet.

Q. Then prior to the year 1882 or the year when this lock was constructed, the limit upon the draft of—or the load and draft of vessels going into Lake Superior was 8 or 9 feet?

A. Yes, sir.

Re-direct examination.

Q. What did you say was the depth of the Calumet river at your yards?

A. It is supposed to be 16 feet, that is, that is the government contract with the dredge contractors to dredge to 16 feet below city datum, and in point of fact, they have gone a little deeper than that. There is about 18 feet there in the middle of the channel. They merely went deeper so as to make sure they had 16.

Q. What do you know of the work now in progress for deepening the channels and passages between Lake Huron into Lake Superior and along over St. Clair Flats?

A. The government is building a new lock at the "Soo" canal that will probably be opened late in this season, that is

to be 20 feet of water over the sills. The deepening of the St. Clair river will probably be finished some time next year, and the deepening of the St. Clair Flats the same. The general understanding is that it will be done in 1896 what they call the 21 foot channel or 20 foot channel, sometimes called one and sometimes called other.

Q. What effect, if any, has the deepening of these water channels had upon the size and dimensions of vessels recently built?

A. The average size of the vessels in all the 3-22-164 lakes has increased very rapidly in the last ten years,

and the first boats that have been built to properly utilize the 21 foot channel, were built last year; that is the depth of the boat was increased so they could be loaded to 20 or 21 feet and still have free board enough, sit enough out of water. I can give you the average sizes or the boats on the lakes for the last ten years.

Q. I wish you would do so.

A. This is a comparison of the condition of the lake fleet in 1884 and the same condition in 1894. The average tonnage of the sail vessels in 1884 was 189, in 1894, was 238 tons, an increase of 26 per cent. Of the steam vessels, the average of the wooden steamers in 1884 was 260 tons, in 1894 was 373 tons, an increase of 43 per cent. Of the metal vessels, iron or steel, the average in 1884 was 889 tons, 31 vessels in all. In 1894 the average was 1,566 tons for 165 vessels, that is an increase of 76 per cent. in the average size in 10 years. The average of the entire lake fleet, both sail and steam, and wood and metal, in 1884, was 217 tons; in 1894 was 369 tons, an increase of 70 per cent. Of the ten steel steamers built in 1894, the average tonnage was 1,990; in 1887, this I speak of from personal knowledge, when I came on the lakes, the largest steamer was a boat called the Susquehanna, whose tonnage was 2,500 30-100; in 1894 the largest vessel on the lakes was the Northwestern, whose tonnage was 4,244, which is an increase of 70 per cent in seven years. The average size of vessels passing the "Soo" canal, this is the gross registered tonnage, in 1870 was 378, in 1880 was 496, in 1890 was 833, in 1894 was 945. That has increased very rapidly.

Q. Who is the president of the company by which you are now employed?

A. W. L. Brown.

Evidence before
Master.

Q. Witness whose deposition was taken just before yours?

A. Yes, sir; just now.

Q. How does that yard compare in size and efficiency with the other metal yards about the lakes?

A. It is considered one of the very best yards on the lakes.

Re-Cross Examination.

Q. Can you tell me what the draft of the average boat of 217 tons would be?

A. I doubt if I could, but I might possibly give you an idea of it. I would have to make a very rough guess at it; I should say 7 to 8 feet.

Q. Take a boat of 369 tons, what would that draft be, average draft?

A. Not necessarily any more.

Q. About 8 feet?

A. Probably 8 feet; yes, sir.

Q. Take a boat of 800 tons, what would be the average draft?

A. This is a very rough estimate. I would say 10 feet.

Q. Take a boat of 945 tons, 950 tons in round figures, what would be about the average draft?

A. I wouldn't change from the last size, 10 feet. It depends entirely upon the boat. A tug boat that may not be over 6 tons would draw 10 or 11 feet, where a flat bottom lumber scow that might be only 300 tons would draw very near as much.

Q. Then the average of boats that could be loaded from 217 tons up to 945 tons would run between 6 feet and 10 feet in draft?

A. I should think so, yes, sir.

Adjourned to Saturday, April 20, at 10 o'clock a. m.

April 20, 1895.

Met pursuant to adjournment.
Present, as before.

HENRY A. KENNEDY, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct Examination by Mr. Ayer.

Q. Please state your name, residence and occupation.

A. H. A. Kennedy; 617 67th street, Englewood; I am a builder by occupation; carpenter and builder; at present I am in the planing mill business.

3-22-165 Q. How long have you resided in the city of Chicago?

A. About 38 years; or, in other words, I came here in 1855.

Q. Have you ever been in the employment of the Illinois Central Railroad Company; if so, when, and how long?

A. I went into the employ of the Illinois Central Railroad Company in 1871, the fall, and I left there in 1887, I think it was about the 1st of November when I went into the service of the company.

Q. Did you ever assist in taking any soundings in the lake or in that portion of it lying in front of the city of Chicago, lying south of the Chicago river?

A. Yes, sir, I did; I took the soundings; I had charge of it, looking after it, making memorandum of soundings.

Q. When was that?

A. I should say in February, in 1872.

Q. How did you take the soundings?

A. I took the soundings with a 20-foot pole by cutting a hole through the ice.

Q. Where did you take those soundings?

A. I took the soundings from the south line of the river, or from the pier of the south line of the river south as far as, I think it was somewhere in the neighborhood of about Harmon court, or Eldredge court; I couldn't tell you just exactly where it was.

Q. By whose directions were those soundings taken?

A. Well, I was there under Mr. Thomas J. Tustin; he was the master carpenter of that department, and I got my instructions from him.

Mr. Hamline: What department?

Evidence before
Master.

A. The lake shore improvement, I believe it was termed at the time, or lake shore protection; that is it.

Q. Do you remember how many days you were employed in taking these soundings?

A. No; it was in the neighborhood of about two weeks, I couldn't tell you exactly; it was off and on; some days we wouldn't be able to take soundings on account of the weather, and other times on other accounts. I know there was an interval of time between the taking of probably first three days, and then an interval of three or four days, probably more; couldn't call to mind just exactly.

Q. What plan did you follow in taking these soundings; how close together were the places where the soundings were made?

A. Every 100 feet in lines north and south 100 feet, and east and west every 100 feet.

Q. Did you make any memoranda at the time of the soundings taken; if so, what memoranda?

A. Yes, sir; took a memorandum of the soundings and they were taken down in a memorandum book, a small memorandum book, in pencil, commencing at the shore line and working east every 100 feet and taking the soundings alternately; taken down in this memorandum.

Q. Will you state whether, at that time those soundings were taken, you noted the height of the water; of the surface of the water above Chicago datum?

A. Yes, sir.

Q. What memorandum did you make of that?

A. Memorandum is made of the height of the water above city datum, whatever it might be on the morning of the day on which we went out to take the soundings.

Q. How did you ascertain the height of the water above Chicago city datum?

A. There is a bench mark at the head of slip C, was the point that we always took for to get the height or the depth; the height of the water above city datum.

Q. Slip C is the slip opening out of the Chicago river, is it not?

A. Yes, sir, the east slip.

Q. That is immediately east of elevator what?

A. Elevator B, I think it is, of the east elevator. I don't remember now exactly whether it is A or B; I think it is B.

Q. You noted every morning, as I understand it, the height of the water above the Chicago city datum?

A. Yes, sir; that is we had a mark—I would not say from city datum, I take the water from the top of the dock to the water, and then they had the distance from this bench mark, which is about 14 or 15 inches below the surface of the water, but that would give the variation of the water above this bench mark or city datum.

3-22-166 Q. The figures that you set down in this book, what did they indicate?

A. The figures in the book indicate—that is the soundings?

Q. Yes, the soundings.

A. They indicate the depth from the water surface to the bottom.

Q. What did you do with that book?

A. I gave that book every evening to Mr. Tustin for him to make the statement or memorandum of the soundings of that day, and when we got through I gave it to him, that is, he had it.

Q. Do you know whether he made any copies of those soundings or any memoranda of them?

A. Yes, sir; he took them down in the book, from the same book every evening.

Q. Look at this blank book now shown you, marked in red ink on the cover, "Soundings, February, 1872," and state whether you can identify that book?

A. This book here I would say was the same book or—
Mr. Hamline: I object; simple question is whether or not he can identify it.

A. Those figures here in this book are in red ink, are Thomas J. Tustin's figures, and the figures on the top there are the figures of the height of the water above city datum as was given on that memorandum that I was given, or in other words, that figure represents the height of the water above city datum, at least the height of the dock, and those figures in red ink are the distances from the surface of the water to the bottom of the lake.

Mr. Hamline: I move that the answer be stricken out on the ground that it doesn't appear that these figures are copies of the original memoranda, from this witness' testimony, and the original memoranda are lost and not been accounted for.

Q. Do you recognize this book as the book to which Mr. Tustin transferred your figure of the soundings?

A. Yes, I should say that is the book.

Q. What was the object of taking these soundings?

Evidence before
Master.

A. All that I can say about the object of it was to get the depth of the water at those various points, to find out what the depth of the water was, and for what purpose or anything of that kind, I couldn't tell you what the object was.

Q. Where is Thomas J. Tustin?

A. I do not know.

Q. How long since you have seen him?

A. I haven't seen him since about 1882, along in the fall or winter of 1881 and 1882.

Q. Do you know whether he has left the city?

A. I couldn't say positively he has left, only from hearsay that he has left. I haven't seen him around the city.

Q. Have you made inquiries for him?

A. Yes, sir.

Q. Been able to ascertain where he is?

A. Not definitely, no, sir; not to know where he is. I have heard he was in California, I have heard he was in Florida, but I never could find anybody that know definitely where he was.

Q. Do you know whether he is living?

A. I do not.

Q. Do you know James Nocquet?

A. Yes, sir.

Q. The draughtsman in the engineer's office of the Illinois Central Railroad Company at that time?

A. Yes, sir.

Q. Will you state whether he is now living?

A. No, sir, he is dead.

Q. How long since he died?

A. I couldn't tell you exactly, I haven't any idea, probably three or four years, I guess maybe more.

Mr. Hamline: I object to the above as being incompetent, irrelevant and immaterial.

Q. Will you look at the plat now shown you to be marked "Defendant's Exhibit I," and state whether you have even seen that map before, and if so, when and where for the first time?

A. Yes, sir; I have seen that map before.

Q. When and where did you first see it?

A. In the draughtsman's office, in Mr. Nocquet's office in the Illinois Central office building.

Q. When did you see it first?

A. I should say in March or April, 1872. This map was followed up as long as they were taking off those soundings they were working on this map.

3-22-167 Q. Who prepared the map?

A. Mr. Nocquet was the one that made the map. He made the map and put the figures on it.

Q. Did you see the map while Nocquet was working on it?

A. I saw it on the table—on the drawing table—while they were working on it; yes.

Q. Do you know what portion of the lake this map covers?

A. I do not; I couldn't say that I do.

Q. Can you state whether it covers any portion of the lake on which you took soundings?

A. Yes, it is from the south pier, or the pier of the south line of the river and east—would be east from what was then the west dock line of the lake or basin.

Q. That is what was at that time breakwater of the Illinois Central, shore line?

A. The shore line, you might term it.

Q. Can you tell how far south the—

A. From Randolph street, I should say; I don't know whether it was the north or south line of Randolph street.

Q. What was the object of this map, as you understood, at the time?

Mr. Hamline: Object to that as being incompetent, immaterial and irrelevant.

A. Simply find the depth of the water at that section of the lake—of the basin.

Q. Show the depth of the water, you mean?

A. Yes, at those various points.

Q. Do you know whether the book which has been shown you containing these soundings, in Tustin's handwriting, was in Nocquet's possession at the time this map was made?

Mr. Hamline: Objected to as immaterial.

A. I will say yes.

Q. Did you have anything to do with the construction of the three extra piers built by the Illinois Central Railroad Company between Randolph street and the river?

A. Yes, sir.

Q. When was that?

A. I can't tell you from memory.

Q. What did you have to do with it?

A. I had charge of the pile drivers, driving of the piles, timbering, planking, getting it all ready to fill; had charge of the filling.

Evidence before
Master.

Evidence before
Master.

Q. You know when that work was commenced; how soon after the soundings were taken by you?

A. No, sir; I couldn't tell you.

Q. Do you know from what source the figures on this plat or map were received by Mr. Nocquet, or obtained by him?

Mr. Hamline: Objected to, as it already appears that he doesn't know.

A. They were taken from that book.

Q. Taken from this book, you mean, the book to which your attention has been already called, the blank book?

A. Yes, sir.

Mr. Hamline: I move that all the testimony with reference to the map be stricken out, as the map has not been offered in evidence, and until offered we can't cross-examine the witness about it.

Mr. Ayer: I am going to offer the map in evidence.

Cross-examine the witness, on account of the fact that Mr. Ayer states that he is going to offer the map.

Cross-examination by Mr. Hamline.

Q. Do you know when the pier farthest north was built?

A. No, sir.

Q. You don't know whether that was built before the fire or not?

A. Built before the fire.

Q. Did you work on that pier?

A. No, sir.

Q. Did you work on the middle pier north of Randolph street?

A. I worked on the two south piers.

Q. That are north of Randolph street?

A. That are north of Randolph street, and the one north of it. The two south piers extending out—

Q. You didn't do any work on the north, the one along side of the river?

A. Unless it was repairs, something of that 3-22-168 kind.

Q. You don't recollect what year the middle pier was built?

A. No, sir.

Q. Nor do you recollect what year the south pier was built?

A. No, I couldn't.

Q. When you made these soundings, how thick was the ice?

A. 16 to 20 inches.

Q. You cut a hole through the ice and put the 20 foot pole down?

A. Yes, sir.

Q. Properly marked, I take it?

A. Yes, sir, graduated for feet and inches.

Q. Do you know whether or not there was any ice on the bottom of the lake at that time?

A. I wouldn't say; there was sand on the bottom.

Q. Do you know whether or not there was any ice on the bottom?

A. I would say no, no ice.

Q. You are sure of that, are you?

A. Well, I would say there was not.

Q. You say that because you knew there was no ice, or just because you now think there was no ice?

A. I say it because judging from the soundings with the pole,—take the dropping of the pole down, the sound of the pole itself would indicate whether it was hard or soft; if it was ice it would have a different sound, or if any hard substance there. Take it for granted that in sounding it was sand.

Q. Do you know what Chicago city datum is?

A. No, sir.

Q. When you took these soundings, you gave the figures which you made, to Mr. Tustin, every night?

A. I gave him the distance from the top of the dock to the water line in the slip, that was the figures I gave him, and he had the distance, or city datum, and the distance from the line which was termed city datum to the top of this dock and then he made the measure or whatever distance there was between the figures I gave him and them to get at city datum.

Q. How do you know he did that?

A. I take it for granted that he did on account of the reports that I gave him that he copied them all right off.

Q. All you know is, that you gave him every night, how much below the top of the dock the water stood?

A. Yes, sir, that's all.

Q. And what he did with that afterwards, you don't know of your own knowledge?

Evidence before
Master.

A. No, only what I have seen. Simply saw him make the copy, copy it off from my book into his book and what he done with it after that, of course I only surmise.

Q. Now when he copied off into his book, did he copy off what you gave him exactly as you gave it to him, or did he make some changes in it?

A. He copied it just exactly as I gave it to him.

Q. Then as it was copied into his book, it was not reduced to city datum, but it was simply the height that you found the top of the dock above the water every day?

A. His book was really a copy of the one I had, that is what it was; that during the day—say today, he would make out the figures, or the—to go there; if he passed here, he would make that out during the day.

Q. That is you think he would do that. You don't know what he did, do you?

A. I know that he did.

Q. And as you don't know what city datum is, how do you know what he did with it?

A. I am saying—I am not—I don't know anything about what his figures are, what it is stated, what he reported, I don't know anything about that, all I know is just that he copied.

Q. You went there under orders from Mr. Tustin, the master carpenter?

A. Well, he was master carpenter, as you term it, or superintendent or supervisor of the lake shore protection.

Q. He was employed by the Illinois Central Railroad Company?

A. Yes, sir.

Q. Now, did you make any figures yourself of the actual depth of the water from this poling, or did somebody else make the figures? When you stuck the pole down through the ice, did you keep tab of the figures, or did some one else?

A. I kept tab myself.

3-22-169 Q. Somebody else shoved the pole down?

A. Yes, sir; three or four men cutting holes through the ice and I had one man take this pole and I would take the figures off the pole myself, the measurements, and put them down in the book.

Q. And those figures were the height of the water underneath the ice, above the bottom of the lake, at the place where you cut the hole?

A. From the bottom of the lake to the surface of the water, not the ice.

Q. You didn't count in the ice?

A. No, sir.

Q. The ice stood 16 to 20 inches high above the water?

A. No, that won't do. The water will come up within probably an inch or two inches; after you cut the hole through the water will raise and will make that within an inch or two of the surface of the ice.

Q. You don't know anything about whether the water was low or whether it was high at that particular month, do you, February, 1872?

A. No, I couldn't tell you whether it was high or low. Might be 3 or 4 inches higher to-day and 3 or 4 inches lower to-morrow, and so on, according to the wind.

Q. You don't recall which way the wind was blowing at that time, do you?

A. Yes, I recall the wind was blowing from the northwest during a portion of the time we were out there.

Q. Northwest?

A. Yes.

Q. Off over the lake?

A. No, sir, from the northwest out on to the lake.

Q. You spoke about something below the surface of the water on that dock, what was that?

A. That is what they termed a bench mark, or city datum.

Q. Then the bench mark was below the water and not on top of the dock?

A. Below the water.

Q. And these figures that you gave every day, did they show the distance from this mark below the water to the top of the dock, or the distance from the water itself to the top of the dock?

A. From the water itself to the top of the dock.

Q. You paid no attention to the height of the water above this mark that was below the water?

A. No, sir.

Q. Was there anything on top of the dock, any mark or anything of that kind?

A. The timber, the top of the dock joined the timber, 12 by 12 timber.

Q. No marks on it of any kind, no bench marks?

A. No, just the top of the timber.

Q. Then all you furnished Mr. Tustin was the stage of the water every day below the top of the dock, and also the

Evidence before
Master.

distance between the water where you cut through the ice and the bottom of the lake at that point?

A. That is all.

Q. You went out every morning for several days at that time?

A. Yes, sir.

Q. You gave these figures to Mr. Tustin at night when you came in?

A. Yes, sir.

Q. Did you see him when you came in at night take those figures and put them on this book?

A. Yes.

Q. He did that while you were there every night?

A. Yes, sir.

Q. And then what did he do with the figures you gave him, did he keep them or did he take them away?

A. I would call the figures off and he would enter it on that book and then when I got through I put the book in my pocket and next morning I had it to start in again.

Q. You took the book that you had?

A. Yes, sir.

Q. I see here, for instance, on this first page of this book, "south pier" marked at the top and above that some writing. Do you know whether that writing was put on there by him at the time you turned in those figures?

A. I couldn't say.

Q. In regard to this writing that is at the top of the page you wouldn't say that was put on at that time?

A. No, I wouldn't say that.

Q. Now, do you know whether or not these figures that are put down here under the term "south pier" show the exact depth of the water as you found it, or are 3-22-170 they reduced to city datum?

A. The figures on there are a copy from the—the figures as I gave them to him.

Mr. Ayer: What figures?

A. The red figures.

Q. You don't know anything about the black figures?

A. No, the black figures were not put on there under my—

Q. There are here four columns on this first page, which column is it that is a copy of the figures you gave to him, the left hand column in red?

A. Both.

Q. Those two, the first and third column which appear in red ink, that right?

A. The red figures, yes, sir; all those in red ink.

Q. And you don't know anything about the columns in black ink of your own knowledge?

A. I didn't see the figures put there.

Q. Well, I find over here in this book—you don't know about anything in this book excepting these figures that appear in red ink?

A. That is all.

Q. Now you say Mr. Nocquet had this book before him when he was making this plat that you have been interrogated about?

A. Yes, sir.

Q. The figures on this plat, I see, are extended out in a straight direction from the bottom of the map or plat; which direction is that that these figures extend out?

A. Which figures do you mean, which line?

Q. Take the bottom line of the plat here, right above the words "the soundings are expressed in feet and tenths which are showing depths of water below city datum." Now, which direction does that line run, north and south, or east and west, if you know?

A. North and south.

Q. Now which is north, the word "the," or the word "datum?"

A. "Datum" is south.

Q. "Datum" is south and "the" is north. Then these lines or figures that run out are at right angles to this line of writing run out to the east, do they not?

A. Yes, sir; that is the lines running at right angles with this line. (Indicating.)

Q. Yes, right angles with the line of lettering that I have just asked about.

A. Well, east.

Q. Now, how do you know that?

A. I form my opinion of that from the position of the lines of these docks.

Q. And do you know what Mr. Nocquet did with these figures that you supplied him and which he transcribed in this book, in making up this plat?

A. I do not, that is, no more that I would see him with that book the same as you had and here is the plat before him and he was figuring, that is all.

Evidence before
Master.

Q. Take, for instance on the third page of the book there is a memorandum "forty feet south" and underneath it "shore eight feet no inches." Where does that appear on that plat?

A. I don't think that figure is on the plat.

Q. These figures that you gave Mr. Tustin are from the river south?

A. The river south.

Q. Do you know where the shore line was at the time you made these soundings?

A. Well, the shore line at this portion?

Q. Between Randolph street and the river.

A. Well, it would be what we would term dock C, I believe, or the lumber dock, as they call it; that would be about the east line; but there was, of course, the pier north extended out on the river line out into the lake.

Q. Dock C was a dock that ran parallel with the shore?

A. Ran parallel with the shore.

Q. And just beyond the elevator—outside elevator?

A. Yes, sir.

Q. And these soundings you took were from the river south?

A. Yes.

Q. And from the outside line of dock C east into the waters of Lake Michigan?

A. From the outside of dock C, no. Well, yes, it would be, I should judge, about that.

Q. Now, is there anything in this book here to indicate how far east you went from this dock line?

A. No, there is nothing to indicate how far east; only indication would be the distance of those distances here from that to that (indicating).

Q. What are they?

A. One hundred feet.

3-22-171 Q. For instance, first page, south pier, shore 9 feet 6 inches; the next is 10 feet 6; how far east of 9 feet 6 is 10 feet 6, do you know? 100 feet, 50 feet, 200 feet, or what?

Mr. Ayer: Can't he take the book and tell?

Mr. Hamline: I object to the witness being in any way instructed by counsel.

Mr. Ayer: I am far from instructing the witness; but I want to get his accurate answer.

Mr. Hamline: You can cross-examine him.

A. No, I don't know positively.

Q. You don't know whether it is 50 feet or 100 feet, do

you?

A. I think it is 20 feet.

Q. How far east is the next one, do you know?

A. Twenty feet.

Q. These are all twenty feet apart, then?

A. Twenty feet; yes, sir.

Q. I thought you stated in your direct examination that you took these measurements 100 feet apart?

A. That is south of Randolph street every hundred feet, and north of Randolph street was every 20 feet.

Q. And east of the pier running east?

A. Twenty feet.

Q. South of Randolph street, running east and west, how far apart?

A. One hundred feet.

Q. That is the way you took the soundings?

A. Yes.

Q. When did you first see this plat here that you have been asked about?

A. I couldn't tell you; I couldn't tell you whether it was 2 months or 2 months or 5 months after.

Q. After you took the soundings?

A. After I took the soundings, no, I couldn't give any —couldn't answer that question, because it might have been two months after.

Q. And when did you see it last, prior to coming here this morning?

A. I saw it at Mr. Ayer's office in the Illinois Central.

Q. You talked over these soundings at that time, did you?

A. Yes, sir.

Q. Talked over this book?

A. Yes, sir.

Q. Now, was your recollection refreshed any in that conversation about identifying this book?

A. No, sir.

Q. Or this map?

A. No, sir; not refreshed in any way, only I was just asked the question if I ever saw the map before.

Q. You are clear this is the same map you saw Mr. Nocquet make?

A. Yes.

Evidence before
Master.

Q. You know his handwriting?

A. Yes, sir.

Q. Is his handwriting on the map?

A. I won't say that I do know his handwriting; I know his figures.

Q. You don't know his handwriting?

A. No, I wouldn't be positive as to his handwriting.

Q. Did you ever make any soundings south of Harmon court?

A. I believe not; don't think I did; not south of Harmon court.

Q. These figures, 4,800 feet south of Randolph street, show the depth of the water at that number of feet south of Randolph street, along the line of the water of the Illinois Central breakwater, just outside of that track, do they not?

A. 4,800 feet—

Q. South of Randolph street.

A. Well, I wouldn't—you are alluding now to this distance that is on that?

Q. I am alluding to this first figure.

A. I don't know whether that first figure was 4,800 feet or 1,000 feet.

Q. You don't?

A. No, that I don't know anything about.

Q. That line at the top you know nothing about?

A. No, I didn't put this figure there.

Q. You can't tell anything about any of these lines that are at the top of either one of these pages?

A. Nothing, with the exception of that one item there; the figures at the top.

Q. Which figures?

A. Those figures there. (Indicating.)

Q. You mean the figures 6 feet 2 inches, at the top?

A. I mean the red figures at the top. Those are the figures taken on the morning of the day—of the depth of the water from the top of the dock to the water line.

3-22-172 Q. But this that is written at the top of each page, south pier 20 feet south, 40 feet south, 60 feet south, &c., you know nothing about?

A. No.

Q. What did you fill in those piers with?

A. Filled them in with clay and sand.

Q. Where did you get the clay and sand?

A. Well, part of it came from the river, and from teams dumping.

Q. Teams dump any clay and sand?

A. Dumped what they call—yes—well, they dumped debris from the city, &c.

Q. Where did you get the sand you speak of?

A. From the scows; from different points; wherever they would be dredging in the river.

Q. Didn't you get some right out of the basin outside of where you were at work?

A. It was all dumped after the pier was enclosed, so the scows couldn't run in there; it was dumped on the outside and dredged and thrown over. But do I understand you are asking me the question as to whether it was dredged from the lake for the purpose of filling; that is, outside?

Q. Yes.

A. No, I wouldn't say it was; no.

Q. In other words, in the immediate neighborhood of the docks that you were constructing you brought material from other places and dumped it in the water alongside of the docks, and then dredged up in buckets and threw it over into the docks and thus filled in the docks; that right?

A. In the construction of the pier out in the lake while it was open, as it was constructed, they run the scows in and dumped; when they closed up the end then it was dumped in the outside and thrown over.

Q. You worked for the Illinois Central railroad until 1887?

A. 1887, about.

Q. Were you engaged in the construction of that dock at 13th street?

A. Yes, sir.

Q. What was that filled in from?

A. That was filled in from the basin, as you term it; that is, the biggest part of it.

Q. Material was dredged from the bottom of the basin and—

A. Dredged from the bottom there; they were deepening the basin, as I understand it; deepening it to make a harbor.

Q. Make it deeper?

A. Make it deeper. And he had a contract, I believe, to deepen it and they took the stuff and dumped it and then it was—not altogether that way. There was lots of it filled out the same way, filled by cars, laid tracks in and dumped, &c.

Evidence before
Master.

Q. Large part of it was from sand that was dredged from the bottom of the basin, itself?

A. Well, yes; I would say the largest part of it was.

Q. Who did that work, do you know?

A. The filling?

Q. Yes.

A. Fitzsimons. Various dredging companies here in the city.

Q. Employed by the Illinois Central?

A. Well, no; I wouldn't say they were employed by the Illinois Central. I couldn't account for that, I know all I had to do was done; that there was a tally kept of the amount of—number of scows, &c. The quantity, getting at the number of yards, &c., that was dumped in. I understand and believe the Illinois Central paid for it.

Q. You were also engaged in that work down near 16th street, weren't you?

A. Well, you mean that—

Q. Where they built some breakwaters, filled in?

A. South of this one you refer to as the 14th street?

Q. Yes.

A. Yes, sir.

Q. Do you recollect when that was first built?

A. No, I couldn't give you the date.

Q. About 1882, wasn't it; that is, the breakwater was built south about 1882?

A. Some time along in that time, couldn't tell you from memory within a year or two or three years—

Q. While you were building that, did you bring in any material—scows—to fill that in?

A. No, that was filled from the dump; that was generally dumped from the city with teams, I think as far as my knowledge goes it was filled by teams.

Q. It was?

A. Yes.

3-22-173 Q. South of the machine shop do you recollect quite a stretch of water being enclosed by cribbing—breakwater?

A. Well, that is the one, as I understand you, that I superintended. You refer to 16th street now?

Q. Yes.

A. There was a pier built on the outside to form a slip from 16th street north. On the south line of this pier will be about 16th street.

Q. Were you working on that pier?

A. Yes, sir.

Q. Were you there until it was completed?

A. No, sir, not as it is completed now. I put in the crib work and filled it with stone and then that is about all that I had to do with it. I didn't complete it. It had to stand some time for it to settle before it was finished up.

Q. You were working down there about 1886 or 7, were you not?

A. Somewhere about that time.

Q. Do you recall some four or five years before that a breakwater that was built there and was afterwards washed away?

A. At 16th street?

Q. Yes, running parallel with the shore. Stood about where the outgoing breakwater does now?

A. No, I don't know at 16th street, I don't remember of any pier.

Q. Calling your attention to complainant's Exhibit L; that is the way the slip now stands, is it not?

A. Well, I should say I judge so. I haven't seen it in—

Q. Now, I will call your attention to complainant's Exhibit I; you see that outside line of piling there?

A. Yes, sir.

Q. I call your attention to Exhibit J; you see that partially submerged?

A. Yes, sir, I understand what you have reference to.

Q. Now, I will ask you if you recollect when there was a line of breakwater extending along parallel with the shore opposite 16th street?

A. A line of piling or—

Q. Crib work, running parallel with the shore.

A. And what distance out?

Q. About 400 feet.

A. There was crib work out where that crib work is there and—

Q. You recollect the time when it was continuous?

A. Continuous to 16th street?

Q. Yes.

A. Yes, I remember now.

Q. Now, then, I will ask you whether or not you helped in building that breakwater?

A. That I did. That is the one I spoke to you about that I helped build it up to the return,—to the north line of 16th street.

Evidence before
Master.

Q. Then you returned it to the shore?

A. Returned probably 50 feet of it.

Q. Leave an opening on the south?

A. Yes, sir, there was an opening on the south.

Q. Now, do you recall how you filled in that slip?

A. That slip wasn't filled while I was there. That slip was filled afterwards, the filling for the slip.

Q. You recollect any boats coming in there through that opening at the south with material to fill it up?

A. Yes, sir.

Q. Do you know what kind of boats those were?

A. They were dump scows.

Q. Do you know who they were employed by?

A. Employed by—well, the same as the other. Don't know who employed them more than—yes, the earth was paid for, the dumping was paid for by the Illinois Central.

Q. There was an opening left here at the south in this crib work through which scows came in similar to the opening that was left in these piers north of Randolph street before you completely closed them in, was there not?

A. Yes, sir.

Q. But this opening at 16th street south there, never was closed up?

A. They form a slip there to make a dock on the outside. Slip inside.

Q. You recollect how long those scows were running in there?

A. They were in there after I had left the service of the company.

3-22-174 Q. Do you recall any scows coming in there when you first built this breakwater back in 1882?

A. Yes.

Q. The same kind of scows?

A. Dump scows, yes, sir.

Q. They brought in material and dumped it here on the bottom of the lake, did they not?

A. Dumped it inside of that breakwater.

Q. They were employed by the Illinois Central in the same way?

A. That is what I believe, I kept—No, I don't know they were employed I won't say that. If I recollect right I believe that what was dumped in there was no record—it left them to dump it as a dumping place. I won't say there was any track kept of that or that they paid for it, anything of that

kind. I believe what filling was put in there came from the river and other points.

Q. Did you direct where it should be dumped? You kept track of that, did you not?

A. Oh, yes, where it was to be dumped. Well, no, I won't say that I done that especially. They had a man there that looked after that.

Q. But that was under your general supervision?

A. Generally speaking, yes. The whole matter was under the general supervision of the chief engineer of the road, I understand.

Q. Did you ever look over Mr. Nocquet's chart so as to discover where on that chart he was placing any of these figures that are in this book?

A. No, sir. That is, not to more than if you had that book and you had the plat and you had a pen and ink and was putting down figures I couldn't tell whether the figures on that plat was the figures of the book.

Q. And you can't tell under what arrangement on that plat he placed the figures that appear in this book?

A. No, sir, I couldn't swear to it, only from what I would simply that I expected that he would do.

Q. For instance, you can't tell where on that plat he put the first figures that appears on the third page of this book?

A. No, I couldn't do that because I hadn't inspected the plat in any shape, manner or form.

Q. You only knew that he was working on this piece of drawing paper and he had this book of figures before him at the time?

A. That is all, that is all I knew about that, yes, sir.

Q. And you are quite positive that these red figures show the actual depth of the water without reference to the city datum?

A. The red figures, yes, sir.

Re-direct examination.

Q. Was the pier known as pier number 1, next to the Chicago river, built at the time the soundings shown upon the book to which your attention has been called were taken?

A. Yes, sir, it was at that time. I wouldn't be positive whether it was the whole of it as it stands there now was built at that time, I won't be sure of that whether there was an ex-

evidence before
Master.

tension put to it since those figures were taken or not. I wouldn't want to say that but there was a pier there.

Q. Didn't your soundings cover the whole space occupied by that pier number 1?

A. Yes, sir, and beyond it, I think, a few feet.

Q. How could pier number 1 have been constructed there at the time you took these soundings?

A. You mean that one at the river?

Q. Yes.

A. Well, it was just what I say. That pier number 1, I won't say that extended out to where it does now, but I think the east line, if I remember rightly, the east line of that pier would be—there is an extension out in the lake parallel with the river and this line where we commenced there was the dock line, and east where the lumber yards were there, that was where we commenced to take the soundings east from.

Q. You commenced taking the soundings, as I understand it, along what was then the Illinois Central breakwater next to the south pier of the Chicago river, that is where you commenced?

A. That is where we commenced.

Q. And you took soundings from that point out easterly into the lake?

A. Out easterly into the lake.

3-22-175 Q. When you took those soundings was that pier number 1 as now constructed in existence?

A. I think not. I don't say that it was. I think it was extended that pier number 1 next to the river. I won't say whether it was extended or reconstructed. It might be, probably it was rebuilt. Now, I won't be positive about that, Mr. Ayer, I wouldn't say as to that.

Q. You were asked by Mr. Hamline whether pier number 1 was constructed before the Chicago fire, the Chicago fire occurred in October, 1871. Now, I wish you would consider and state if you are able, whether this pier number 1 was constructed before the Chicago fire or after.

A. It was there before the Chicago fire.

Q. It was?

A. I should say so. As I said before, I don't know what the whole of it as it stands now, was there.

Q. Had been commenced, you think?

A. Yes, it had been commenced.

Q. Do you know what pier number 1, that I refer to, is?

A. Pier number 1, as I understand you, is the pier that is the dock line of the river, as you might term it, on the south line of the river. What we call in other words, the government pier, the government dock.

Q. Do you mean the United States pier, south pier, do you mean what is called the south pier constructed by the government of the United States?

A. I mean the pier that forms the south dock line of the river.

Q. That is the government pier, isn't it?

A. Probably.

Q. That is not what I mean by pier number 1. I mean the pier that was constructed by the Illinois Central Railroad Company immediately adjacent to the south pier?

A. Pier number 1 south of that?

Q. Yes, south of the south pier.

A. Yes, I understand you now.

Q. Was that pier number 1 built at the time you took those soundings? The north one of the three Illinois Central piers?

A. Yes, I say it was.

Q. Your soundings covered the space, did it not, occupied by that north pier?

A. Yes.

Q. Then was that pier built at that time, at the time these soundings were taken?

A. No, not that pier. When you spoke of pier number 1, I thought you had reference to the pier what you term now as the government pier or dock.

Q. Can you state what has become of the memorandum book in which you noted the soundings which you made?

A. I gave that to Mr. Tustin, and I don't know what became of it when I got through.

Q. Have you seen it since?

A. No, sir.

Q. I understand that you were employed in the construction of the pier extending south—the outside pier built by the Illinois Central Railroad Company, extending south from Park Row, or southeasterly from Park Row, to Sixteenth street, shown on the photographs to which your attention has been called?

A. Yes, sir. That is what we called the Sixteenth street pier.

Q. How was that constructed?

A. Crib work.

dence before
after.

Q. And I understood you to say that you superintended the construction of that pier and the loading of it with stone?

A. Yes, sir.

Q. When was that pier constructed?

A. I wouldn't say.

Q. Do you know whether it was not about 1882?

A. About that time; yes, sir. Somewhere about that.

Q. And you left the service of the railroad company in 1887?

A. February, 1887.

Q. Now, up to the time that you left the service of the railroad company, did you observe the dumping of any material inside of that pier from dump scows anywhere between Sixteenth street and Fourteenth street?

A. Previous to the time that I left the company?

Q. Yes.

A. Yes, sir.

Q. Before you left the service of the company?

A. Yes, sir.

Q. When was that dumping?

A. Probably a year before I left the service of the company. You have reference to the pier, as you term it, at Sixteenth street?

Q. I mean that exterior pier that you say was built of crib work loaded with stone, extending southerly or southeasterly from Park Row, say to Sixteenth street; 3-22-176 the outside pier?

A. That part of it, yes, sir. I only constructed the point south of Weldon, as we term it, because that was the old line of dock.

Q. Did you have anything to do with filling any of the space inside of that pier?

A. Yes, sir. That is, nothing more than like all ordinary work. I had that much to do with it—simply to see when it come there, about the distribution of it, where it would go. There was a man that attended to that part. I didn't attend to that specially myself. It came under my supervision, you might term it.

Q. You know nothing about any dumping that took place there after you left the service of the company?

A. No, sir; I don't know anything about it after I left the service of the company.

Mr. Ayer: The blank book to which the witness' attention has been called, we will identify by styling it Defendant's exhibit number 2.

Re-cross examination.

Q. Calling your attention to this map, known as the Morehouse map; at the time you were engaged in making these soundings in 1872, there was nothing outside of this dock marked "C, built 1867," excepting a narrow breakwater running out east therefrom and forming the south line of the Chicago river, was there?

A. At the time these soundings were taken?

Q. Yes; that is, running east?

A. I couldn't tell from this plat, but I should say that line there must have been, if I understand it, that line there I should say that was where we took the measurement from, was this line.

Q. Marked "Breakwater as it was in 1869" on this map?

A. Yes, sir.

Mr. Ayer: This is the east line of what is marked on the Morehouse map "C, built 1867."

Q. And when you speak of taking your measurement from the top of the dock it is this dock C?

A. I will show you the point as near as I can from this pier; that is the slip, as I understand it.

Q. Slip C?

A. Slip C. This point running from here, right here just at that point about four feet from that angle (referring to the south end of slip C), just about four feet from that angle. Now this is the angle here come in just about there, say, four feet from that angle. There on that point was where this bench mark was, the top of this dock was, that is where we took the measurements.

Q. And that is at the south end of this slip marked C on the Morehouse map?

A. Yes, I would say this slip proper run out to the marks here. That point it run under what we termed a bridge there, just cut off the corner.

Q. In other words, the water flowed mainly from slip C into the basin south of it?

A. No, this line here, this was built and filled in, that was part of the dock the ends across here. The head of the slip, as we termed it. The end of the slip here was closed.

Q. The south end of the slip was where you had the bench mark?

A. South end of that slip; yes, sir.

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April 20, 1895.

L. P. MOREHOUSE, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. Please state whether your deposition was taken in this case before the final hearing before Judge Harlan?

A. It was.

Q. How long have you lived in the city of Chicago?

A. Since 1857.

Q. How have you been employed during that 3-22-177 period?

A. I have been employed by the Illinois Central Railroad Company in different positions. At the present time I am tax commissioner. From 1857 to 1877 I was employed as a civil engineer.

Q. What were your duties as such civil engineer and where were they performed?

A. I was the immediate assistant of the chief engineer and had charge practically of all matters pertaining to the chief engineer's office—the general office of the engineer department from 1860, perhaps to 1877.

Q. I will call your attention to the tracing now shown you to be marked "Defendant's Exhibit 3," and ask you to state what that tracing is.

A. This is a map showing the line of the Illinois Central Railroad and the property of the Illinois Central Railroad Company from the Chicago river south to about 16th street. It also shows the piers and slips which the company proposed to build under the act of 1869. It also shows the soundings taken in June, 1869, by me, giving the depth of water between the Chicago river and a point a little north of 16th street and extending nearly half a mile into the lake.

Q. When and by whom was that map made?

A. I made the map in June, 1869, with the exception of some lines at present shown on this map, which have been—a few lines which have been placed upon it since; substantially the map was made by me in 1869.

Q. What lines have been placed upon the map since?

A. Allow me to correct a statement. I said that these soundings were taken half a mile from shore; I see the map shows they were taken for a mile out instead of a half mile.

Since the map was originally made there is a delineation in parallel black lines and dotted lines showing a portion of the present United States breakwater running parallel with the shore. That breakwater was not constructed in 1869 and those lines were subsequently placed upon this map. There are a number of red lines showing north of Randolph street proposed piers and south of Randolph street one outer red line showing the proposed easterly end of piers as they were subsequently planned and a dotted red line marked "dock line" showing the dock line as subsequently established by the United States Engineer Department. There are some lines south of Park Row two parallel dotted lines showing the line of a breakwater subsequently constructed and a diagram showing a round-house which was subsequently constructed and which is marked, 15 stalls to be built. I think those are the additional lines only that have been added to this map.

Q. What do the figures in parallel rows or columns indicate upon this map?

A. They indicate the depth of water when these soundings were taken in June, 1869.

Q. What was the object of taking these soundings and making this map?

A. It was for the purpose of making a preliminary and approximate estimate of the cost of constructing the proposed piers and slips.

Q. Who placed those figures upon this map?

A. I did.

Q. How did you make the soundings?

A. The soundings were taken from a boat by means of a sounding rod in the shallow water and by a sounding line in the deeper water.

Q. Do you know whether or not these figures show accurately the soundings as they were taken by yourself at that time?

A. They show the soundings as they were taken by me at the time.

Q. Are they referred to any particular plan, or do they show the actual depth of the water from the surface at that time?

A. They show the depth of water at that time. They were referred to some plane of reference as they were taken on different days, that plane of reference, my recollection is, was supposedly to be the average depth of water but I have

vidence before
master.

no means of determining exactly what that plane of reference was. I am of the impression, I am quite confident that it was not the city datum, but that it was what we considered the average height of water, which would be considerably above city datum.

Q. When did you say those soundings were taken?

A. In June, 1869.

Q. When was the map made?

A. The same time.

3-22-178 Q. What are the memoranda on the end of the map, on the left hand side of the map?

A. It is an estimate of quantities for dredging the slips and filling the piers, showing the number of cubic yards.

Q. Whose handwriting?

A. In my writing with the exception of six or eight lines at the bottom, which are in the handwriting of Mr. P. M. Kellogg, who was at the time Division Engineer.

Q. When were those memoranda made by you and placed upon the map?

A. I have no doubt they were made at the time the map was made, the same time, I cannot swear positively that they were placed there at that time. There was no reason why they should have been placed there at any other time and I feel warranted in saying that they were placed there at that time.

Q. I will call your attention to the red lines on that portion of the map between Randolph street and the river and east of the elevators and slip of the Illinois Central Railroad Company and ask you to state when those lines were put there, and for what purpose?

A. The black lines running eastwardly into the lake show the piers as originally proposed. Subsequently another plan was made and the red lines to which you refer show the dimensions of the slips and piers immediately south of the Chicago river as proposed in that plan.

Q. Will you state whether that plan was followed in the construction of the three piers north of Randolph street?

A. No, it was not. The piers as constructed were constructed on a different plan.

Q. Do you know how far apart these soundings were taken?

A. They were taken at irregular intervals; the map itself is drawn to scale and the soundings show for themselves.

Q. Will you state whether the map does or does not show approximately the site of the different soundings?

Evidence
Master

A. It does.

Q. I will now call your attention to another map which is referred to in the deposition of Mr. Kennedy and is to be marked "Defendant's Exhibit No. 1," and state, if you know, what that map is.

A. This is a map made in the office of the chief engineer of the Illinois Central Railroad Company in the early part of 1872, and shows soundings that were taken in February, 1872, south of the Chicago river, extending to about the north line of Randolph street and extending into the lake 1,200 feet.

Q. From what point—from what line?

A. From what was then the east line of the Illinois Central breakwater between Randolph street and the Chicago river.

Q. Do you know by whom that map was made?

A. Made by James Nocquet, who at that time and for many years was draftsman in the chief engineer's office.

Q. Did you have any connection with the making of that map or any supervision of it?

A. Only in a very general way. I had general charge of the making of this map. Mr. Nocquet made the map from data furnished him by Mr. Tustin, who took the soundings.

Q. Will you state whether that map was made by Mr. Nocquet in the usual course of business and in the ordinary performance of his duties?

A. It was.

Q. As a draftsman in that office?

A. It was.

Q. How long was Mr. Nocquet in the employment of the Illinois Central Railroad Company?

A. I think that he must have come to us about 1870 and he remained in the employ of the company until he died in 1890.

Q. Who placed the figures on that map?

A. Mr. Nocquet.

Q. Are you familiar with his handwriting?

A. I am.

Q. In whose handwriting are the words at the bottom of the map: "The soundings are expressed in feet and tenths and are showing depth of water below city datum that were taken on the ice in February, 1872, scaling 50 feet to an inch."

vidence before
Master.

A. They are in Mr. Nocquet's writing.

Q. How far apart do these soundings appear from the map to have been taken?

A. Twenty feet apart each way.

Mr. Hamline: I object to that, because the map is the best evidence, and the map has not been offered yet.

3-22-179 Q. Can you state from this map where the exterior line of the piers one, two and three, constructed by the Illinois Central Railroad Company north of Randolph street, would be?

A. The exterior or easterly end of these piers is one thousand feet from the Illinois Central breakwater, and is plainly indicated on the map by the figures 1,000 being marked on the south pier, and that line continued south shows the easterly end of the piers.

Q. Is the top of this map north or east?

A. It is east.

Q. I will now call your attention to this memorandum book marked "Defendant's Exhibit No. 2," and will ask you to state what that book is.

A. This is the book in which Mr. Tustin recorded the soundings taken by him or under his immediate charge.

Mr. Hamline: I object to the witness' answer on the ground that it is not responsive to the question, and incompetent, immaterial and irrelevant. The book is the best evidence.

A. This book shows the record of the soundings, as made by Mr. Tustin, and furnished by him to Mr. Nocquet, for the purpose of enabling the latter to make a map showing these soundings. The figures given by Mr. Tustin are in red ink; opposite these figures are black figures which were made by Mr. Nocquet; the red figures showing the depth of water as the soundings indicated, and the black figures showing the depth of water; that is, each sounding being referred to city datum. This is true, with the exception of a few of the latter pages of the book, where the red figures do not appear and my statement does not apply. To the bulk of the book my statement is applicable.

Q. Do you know whether the soundings, as shown upon this book, were transferred to the map to which your attention has been called?

A. They were so transferred.

Q. Who was Mr. Tustin?

A. He was, in 1872, foreman or superintendent in charge of the work along the lake shore, in the city of Chicago.

Q. In whose employment?

A. In the employ of the engineer department of the Illinois Central Railroad Company.

Q. Do you know whether or not, at that time, he was employed in making soundings along in front of the lake shore between Randolph street and the river?

A. I know that he was.

Q. Do you know whether or not Mr. Nocquet, in making that map, had this book before him?

A. He did.

Q. What has become of Mr. Tustin?

A. Mr. Tustin left the city a number of years ago, about 1880, I should say, and at present I am unaware of his whereabouts. I have inquired at different times in the past year of different people whom I thought might know something about him, and I have never found anyone who knew where he was. Nobody seems to have any trace of him.

Q. I will call your attention to the figures and words at the top of the first page in this memorandum book on which soundings appear to have been noted, and ask you to state in whose handwriting they are.

A. The figures at the very top, "7.243 above city datum," are in the handwriting of T. M. Kellogg, who was at that time Division Engineer. The red figures immediately—or running down the page are in Mr. Tustin's handwriting, and the black figures opposite are in Mr. Nocquet's.

Q. In whose handwriting are the figures and the words near the top of the page, "6 foot, 2 inches from top of south pier to water surface, measured at a point 10 feet west end of pier?"

A. I think those are in the handwriting of Mr. Nocquet, but the writing is a little condensed here and it is not perfectly clear to me; that is, I am not perfectly positive that Mr. Nocquet did write those words.

Q. Can you state whether you are familiar with Mr. Nocquet's handwriting?

A. I stated that I was.

Q. How is it with regard to Mr. Tustin's handwriting?

A. Tustin's handwriting I was familiar with. I have not seen any of it for a long time, and I think I should recognize it if I saw several connected sentences.

322-180 Q. How do you know the soundings indicated on this book in red ink are in Tustin's handwriting?

A. I recall his figures, and I recall the fact of the book

Evidence before
Master.

having been made by Tustin. But as to these lines here, I am unwilling to testify positively; it looks to me like a cross between Tustin's writing and Nocquet's writing.

Q State, if you know, what was the object in making these soundings and making this map, defendant's Exhibit I?

A. The company proposed to construct several piers in this locality, and the soundings were taken and this map made for the purpose of enabling computations to be made from which an estimate could be made of the cost of the work.

Q. Has this map always remained in the company's office since 1872?

A. It has remained there unless, possibly, it may have been cut for a short time for some special reason. I should say it had been continuously in the office.

Q. Do you know about any bench mark on any of the Illinois Central piers to indicate the height of the water above city data?

A. I do not now recall the location of any.

Q. Do you know whether there was one or not?

A. There was.

Q. Will you state whether, subsequently to making this map the Illinois Central proceeded to the construction of pier between Randolph street and the river?

A. It did.

Q. Will you state whether the company caused any other soundings to be made before that work was undertaken, or during its progress off the piers included by this map, or after the constructions were made, from information obtained by these surroundings?

A. The north pier, or pier number 1, as it is called, was constructed shortly after these soundings were taken, and these soundings were used in estimating the quantity of material placed in that pier. Piers 2 and 3 were constructed a number of years after that time, and I am unable to say whether these soundings were or were not used in estimating the work in the construction of those piers. Those piers were built subsequent to my connection to the engineer department.

Mr. Ayer: I now offer in evidence the two maps which have been referred to, as Defendant's Exhibit Number 1, Defendant's Exhibit Number 3, and also the memorandum book which has been referred to, as Defendant's Exhibit Number 2.

Mr. Hamline: I object to the offer of the map Exhibit 1, on the ground that it is incompetent, immaterial and irrelevant, Exhibit Number 3, on the ground that it is incompetent, immaterial and irrelevant, and also to the Book Exhibit Number 2, on the ground that it is incompetent, immaterial and irrelevant.

With the consent of complainant's counsel copies have been made of the two maps referred to, on muslin, and these copies will be substituted for the original maps and blue print copies of each tracing will be furnished to counsel.

Adjourned to Tuesday, April 23, 1895.

April 23, 1895.

Met pursuant to adjournment.
Present as before.

Cross-examination of L. P. Morehouse, by Mr. Hamline.

Q. Calling your attention to Exhibit 3; when did you make that Exhibit?

A. I made this map in June, 1869.

Q. When did you make the soundings that appear on that map?

A. At the same time, that is, just prior to making the map.

Q. Were they made in the month of June, or prior to the month of June?

A. I presume they were made in the month of June; they may have been made possibly in May, but they were about the same time.

Q. May they not have been made early in April?

A. No, I think not. I remember the weather was quite mild and warm, and I don't think it would have been as warm as that in April.

3-22-181 Q. Do you recall whether or not the Lake Front Act of 1869, so called, had been passed before you made the soundings?

A. I presume so, my recollection is that that was passed early in the season of 1869, but I haven't had occasion to think of that lately and I do not know the date exactly.

Q. Did you make these soundings yourself?

A. I was in charge of the parties that made them, quite

Evidence before
Master.

a number of people were employed in making soundings, and I was in charge of the party.

Q. Did you go out in the boat?

A. Yes.

Q. Did you make any soundings yourself, personally?

A. I do not recall particularly, the person in charge of such a party is very apt to do a little of everything, and I presume that I made some of the soundings personally.

Q. Do you recall that you had more than one boat?

A. I think we had only one boat.

Q. And there were a number of you in the boat?

A. Yes.

Q. And who registered the soundings at the time they were made?

A. I presume that I registered some of them. I do not think I registered all of them. I think that either myself or Mr. Alcock, who was with me in the boat, must have registered the soundings.

Q. These soundings extend from the river down as far south as about 15th street?

A. Between 14th and 16th, yes.

Q. You recollect what part of these soundings you yourself registered?

A. I do not.

Q. And do you recall what part Mr. Alcock registered?

A. I do not.

Q. What did you register these soundings in, in a book or on loose slips of paper?

A. In a book or books.

Q. You had one book, you think, and Alcock had one book?

A. No, I presume that one book was used and that the party recording the soundings used that book. If I was recording the soundings I then would have the book; if Alcock was recording them, he would have the book.

Q. Do you know what has become of that book?

A. I do not.

Q. Where is Mr. Alcock now?

A. I do not know.

Q. How long since he left the employ of the Illinois Central?

A. I should think perhaps twenty years ago.

Q. What was his business at that time?

A. He went from the Illinois Central to the North-

western road as the private secretary of Mr. Marvin Hewitt.

Q. What was his business at the time these soundings were taken?

A. He was employed in the engineer department; the chief engineer's office.

Q. Do you recall how you took these soundings; that is, have you any definite recollection yourself?

A. Yes, sir, I remember that we took them from a boat; we had several men in the boat and we had a man on shore with an instrument to determine the location of the boat.

Q. You took them at regular intervals apart, did you?

A. No, sir, these are not regular intervals, these were fixed by the man with the instrument on shore, by means of the angles which he took locating the position of the boat; they were intended to be taken at substantially regular intervals.

Q. They were intended to be a straight line east and west approximately?

A. Yes, sir.

Q. Do you recollect what means you took to find out the stage of the water on the days you took soundings?

A. I do not recall that; my recollection is that there was some mark upon the breakwater that was used as a reference, but what that was and where it was, I do not recall.

Q. That was a breakwater known as—

A. Breakwater parallel with Michigan avenue.

Q. Main breakwater outside of the main tracks of the Illinois Central?

A. The only breakwater.

Q. Now these soundings up here north of Randolph street; this map is drawn to a scale, is it not?

A. Yes.

3-22-18: Q. I observe that there are no soundings between this line of breakwater that forms the south side of the river and marked 1,224 feet in length and the second line of dock projecting out east from dock C a distance, should judge about 500 feet, and then there are no soundings taken marked on the map until you get down to pretty near the north line of the south dock of the three docks projecting from dock C, and about 500 feet, I should judge, south of this other line of soundings. Do you recall whether or not the soundings were about 500 feet apart north and south?

A. The intention was to make the line of soundings on the line of each street. You will see these soundings on the

Evidence before
Master.

street lines, and north of Randolph street they are taken with the idea of being about the same distance apart, as south of Randolph street I do not recall whether it was 400 or 500 feet that we took them, but that was the original intention.

Q. There is nothing on this map to indicate where the land above water stopped at the time the map was made, is there—the actual land that appeared above water?

A. No; the map was not designed to show the shore lines at all, except as they are marked by breakwaters.

Q. Do you recall whether or not this dock which appears on your map in the main lake front case, Morehouse map, marked "Dock C"—do you recall whether or not that dock was entirely filled in and above water at the time these soundings were taken?

A. My impression is that that dock east of slip C, which you refer to, was not entirely filled at that time.

Q. As a matter of fact, at the time you took those soundings there, they were engaged in filling in the dock, were they not?

A. This particular dock; dock C?

Q. Yes.

A. I think so; I have not had occasion to refresh my memory with regard to that lately, and I wouldn't say positively, but I am pretty confident they were filling that at that time.

Q. None of these docks that now project east of this dock C; were they in existence?

A. None of them.

Q. Calling your attention to the two dotted lines stretching from Park row southeast to a point beyond 14th street; those lines were purely imaginary, at the time the map was made, were they not?

A. Those lines have been put on since the map was made. At the time the map was made there was no thought, I presume, of any such lines. They indicate the position of the breakwater which has since that time been constructed.

Q. At that time; at the time this map was made, there was nothing outside of this line of breakwater that runs parallel with the tracks of the Illinois Central Railroad Company down as far as below the round-house marked "Fifteen stalls to be built," was there?

A. There was no continuous breakwater as indicated by these dotted lines, but for a few hundred feet directly south

of Park row a portion of an old breakwater, occupying substantially the position of these dotted lines, did exist.

Q. Running south about as far as 12th street?

A. I should think so.

Q. Otherwise there was nothing outside of the line of breakwater parallel with the tracks of the Illinois Central railroad, until you got down below this round-house, marked "Fifteen stalls to be built?"

A. There was also an unfinished or partially destroyed breakwater at the south end of the map here; how far north that extended I do not recall, but I should say it did not extend north beyond the position of the fifteen-stall engine house alluded to.

Q. With that exception, there was nothing in the——

A. There was nothing between the two breakwaters south and north that I have referred to; the two old breakwaters.

Q. I observe on this map here, marked "Estimated cubic yards" numbers 1 and 2 and slips 1 and 2, and opposite that, under the heading "Dredging," 151,384; under "Filling," 1,375,826; what does that indicate?

A. Those figures indicate the estimated number of cubic yards required for filling the proposed piers 1 and 2, and the number of cubic yards required for dredging the slips number 1 and number 2.

3-22-183 Q. What do you call slips number 1 and number 2?

A. The words on the map, "Slip 1" and "Slip 2," placed between piers 1 and 2 and piers 2 and 3, are the slips that I refer to.

Q. And when you speak of pier 1, you refer to these large structures marked upon this map in black ink?

A. Yes. The different piers are numbered number 1, number 2, number 3, and so on, up to number 13.

Q. And they are all delineated on the map in black ink, as distinguished from those that are marked out in red ink?

A. Yes.

Q. Now, this 151,384 is the number of cubic yards to be taken out from this slip that intervenes between dock 1 and 2 and this slip that intervenes between dock 2 and 3?

A. That is so stated on the map.

Q. Now, do you know how you arrived at those figures?

A. I have no definite recollection as to the detail, but un-

Evidence before
Master.

doubtedly the quantities were arrived at from the soundings which were taken at the time and delineated on this map.

Q. The "dredging" refers only to the dredging out in the slip, and doesn't refer to dredging where the docks were to be built, I take it?

A. The dredging must refer to the dredging of the slips; the docks or piers were to be filled, there would be no dredging there.

Q. Now, could you tell me roughly, what a square yard is?

A. These are cubic yards, containing 27 cubic feet.

Q. Could you tell me how many cubic yards there are in slip 1 and slip 2, approximately, estimating that you dredge 1 foot deep?

A. Well, it might require a little time to figure it up. The water in slip 2, I see, varies from 7 feet; the soundings nearest to the slip, of course, would be taken. There are no soundings directly in the slip, there are soundings north of the slip and south of the slip, there are soundings north of would average those soundings. You understand this was not a careful estimate, the exact cost for the proposed letting of the contract, but it was preliminary and approximate estimate, getting a general idea of the character and expense of the work; it was not a contractor's estimate by any means, but a very rough estimate. These soundings here did not allow any very careful estimate to be made.

Q. Can you tell from these figures how deep you proposed to dredge to get 151,384 cubic yards out of slip 1 and slip 2.

A. I do not remember what depth of water was contemplated.

Q. Could you tell us how many cubic yards would be taken out of slip 1 and slip 2 by dredging the slip one foot deep?

A. It would require some little time to make the calculation of course, as the depths are not uniform, they vary from 6 feet or a little less than 6 feet, up to 11. Eleven seems to be the deepest water. It would be a matter of calculation as to what the average depth was, of course.

Q. Assuming that the bottom was level?

A. Well, the bottom is not level, of course, because of the very fact of the difference in these soundings shows that the bottom varies.

Q. The depth east and west of the slip number 1 is how many feet?

A. 1,440 feet.

Q. The depth east and west of slip 2 is 1,880 feet, is it not?

A. Yes, sir.

Q. And the east 1,200 feet of slip number 1, approximately, is of uniform width of 150 feet, is it not?

A. Yes.

Q. And the east 1,500 of slip 2 is, approximately, 150 feet wide?

A. It seems to be about 1,500 feet long.

Q. How many cubic yards are there in a space 1,200 feet long by 150 feet wide, 1 foot deep?

A. About 6,667.

Q. At the time this map was made, do you recall whether or not there was any pier extending along the south line of the Chicago river east of this dock C?

A. There was one was called the United States south pier extending east from the northerly end of what you call dock C?

Q. Do you know how far that extended east, in June, 1869?

A. I presume the distance is marked accurately on this map, 1,224 feet.

Q. You think it extended that far at that time?

A. I think so. The pier was in a dilapidated condition and had been for some years, it might be a question with different people as to where the exact easterly end might be, one person measuring it might measure it a greater distance into the lake than another one would on account of the dilapidated condition, and there being no well-defined finished ending of the pier.

Q. You observe on your map opposite the pier referred to, a rectangular shape on the north side of the river with one end cut off; what does that designate?

A. That enclosure represents the light-house, government light-house on it; stood at that time with a breakwater surrounding it.

Q. That had been there for some years, had it not, at that?

A. I think so.

Q. And remained for a good many years afterwards?

A. I think it was only removed within a year or two.

vidence before
Master.

Q. That was the main Chicago light at that time?

A. Yes.

Q. And when were these red lines placed upon this map?

A. I do not recall.

Q. They were not placed upon it in 1869, were they?

A. They may have been placed there at some time, June, 1869, in that year.

Q. Do you know what was done with the map subsequently?

A. It was filed with other maps in the engineer's office.

Q. Was it ever submitted to the United States government?

A. I do not know that this particular map was submitted, but I believe that a map similar to this, that is, showing the construction of the piers and—that is, the proposed construction of the piers and slips was submitted to the United States engineer department.

Q. Was that made at the time this map was made?

A. I do not remember.

Q. On the extreme upper end of this map I observe two parallel lines, enclosed at either end, with 1,150 marked in the center and stretching south from this parallel line two dotted lines; what do the enclosed lines indicate, as distinguished from the dotted lines at the time this map was made?

A. The full lines indicate the first portion of the United States breakwater, which was constructed by the United States government some time subsequent to 1869, 1872, I think, and the dotted lines indicate the proposed extension of that breakwater, and also indicate the line on which the breakwater has since that time been constructed. The 1,150 feet indicates the length of the government breakwater, constructed some time, some considerable time after this original map was made. Those lines were not placed on the map by me at the time this map was made.

Q. They were placed subsequent to 1872, were they not?

A. My impression is that that 1,150 feet was built in the year 1872, and that, therefore, these lines must have been placed upon the map after 1872, presumably between the fall of 1872 and the summer of 1873, when the work would be completed.

Q. The Illinois Central built three docks north of Randolph street, of a length east and west, and an average width somewhere of the size of the docks traced on this map in red ink, did it not?

A. Somewhat of this character. This, however, shows three proposed piers in red lines, the third or south one extending beyond the south line of Randolph street; the piers, as constructed, are all north of the north line of Randolph street, therefore these red lines do not show substantially the piers as they have been constructed, the piers being smaller than these.

Q. They do show the length of the piers?

A. The length is the same, 1,000 feet.

Q. Those piers projecting east from dock C were built and filled in in substantially the same manner as dock C was constructed and filled in, were they not?

A. No, I think not. My recollection is that dock C was not filled in any degree by bringing scows loaded with material and dumping the scows in the space that was afterwards filled and made a part of dock C, whereas the outside piers were constructed very largely by bringing in scows loaded with dredged material from the river or lake, that material being dumped on the ground to be filled in, and thus the filling was largely made for those outside piers.

Q. Do you recollect when you began to build the dock nearest the Chicago river?

A. Yes.

3-22-185 Q. What year?

A. As to the year, I think it was in 1872; I think we began the pier in 1872 and completed it in 1873.

Q. And do you recollect whether you had dock C fully completed before you began on the dock running parallel to the river, that you have just spoken of?

A. I am not certain whether that was entirely filled or not; my recollection is that it was, or nearly so; there may have been a corner of it that was not filled. My impression is that it was substantially filled.

Q. Do you recall how the material was brought and put in dock C to fill it?

A. Brought in largely by train and largely by filling by trains.

Q. Do you recall when the bridge was built at the south end of slip C, over which you got to dock C to fill it?

A. There was no bridge there. There was a continuous breakwater which allowed sufficient space for a roadway for teams to pass; that breakwater I think was extended to the north by what you might call a bridge, perhaps, so as to make

vidence before
master. a wider roadway and to give access to D. I do not remember when that was.

Q. That was a trestle work was it not, the extension?

A. I presume it was, I don't recall the exact construction of that additional width there.

Q. You had a railroad track running across it over which to take trains loaded with material?

A. No, I don't think there was any railroad track over what you call the bridge. I am not certain as to the location of the track that was laid for the purpose of filling dock C.

C. There is a track shown upon this plat I think, however, that the red line shown here as a track upon dock C does not indicate the line of track which was actually used in filling. I think that the track actually used was further west at the south end of slip C, and actually crossed the southeast corner of slip C on a trestle, that is my impression at this moment.

Q. You testified on the hearing of this case when it was in the lower court, at a prior date, did you not?

A. I did.

Q. And you prepared testimony about the map introduced in evidence as Defendant Illinois Central Railroad Company's Exhibit Map Number 11, did you not?

A. I testified with regard to a certain map, I do not remember as to the number that was given to it.

Q. I call your attention to Map Exhibit Number 11, and ask you whether or not you did not testify to this map?

A. This looks like the map.

Q. Do you know when the original of this map was made?

A. I don't think I recall at this moment; it looks very much like a map, the map we have been looking at, and I presume it was made about the same time; I see it has the date May, 1869, and I presume that is the time the map was made.

Q. Do you know for what purpose that map was originally made?

A. The map shows substantially the same as the map we have been looking at, except that it doesn't show the soundings. I presume this map was made for the purpose of showing the proposed arrangements contemplated, piers and slips and outer breakwater.

Q. Do you know for what purpose it was used at the time it was made?

A. I do not know for what particular purpose this map was used.

Q. Do you know how it happened that you made two maps, one in May, 1869, and the other in June, 1869?

A. I suppose we needed one map in May and another one in June; I have no definite recollection as to the particular time when the two maps were made. We made a number of maps about that time.

Q. Do you know who made this map that you have introduced here, bearing the soundings?

A. I made it.

Q. Personally?

A. Yes, sir.

Q. And did you personally make the map that was made in May, 1869?

A. I don't think I made this map which you show me here.

Q. Did you make the original of this map?

A. I do not remember.

3-22-186 Q. How can you remember that you made a map in June, that is before you, and can't remember that you made the map in May?

A. I recognize my own figures and lettering. This other map which you show me doesn't contain anything of that sort. Those are not my figures, I certainly didn't make that particular map.

Q. Did you make either of these particular maps in conjunction with the establishment of the dock line by the United States government?

A. I should say that both these maps were made before the dock line was established. My recollection is that the dock line was not established until some time after June, 1869.

Q. Were either of them made and submitted to the United States Government for the purpose of establishing the dock line?

A. I have no personal recollection as to that; I understand, however, that they were so submitted, but that the government would not consent to the line which the railroad company proposed.

Q. Do you recollect when the Illinois Central was enjoined by the United States Government?

A. I do not.

Q. Do you recollect of that incident?

vidence before
Master.

A. I suppose I do; at the same time, it is a legal matter that wouldn't particularly come to my notice, and I would know it by hearsay, simply.

Q. I suppose that would be true of all employes of the corporation, would it not?

A. With regard to an injunction, outside of those particularly interested, yes, sir.

Q. Do you recollect whether, at the time the injunction was gotten out, the Illinois Central were still engaged in filling in dock C?

A. I do not. I have no definite recollection whatever as to the time of the injunction that you speak of.

Q. You don't recollect whether or not that injunction was for the purpose of stopping the filling that was then going on in dock C?

A. I don't think it had any reference to that at all, sir; I never understood that the government proposed to interfere with anything inside of the Illinois Central breakwater lines.

Q. You testified, I believe, when this case was before the court below, as follows: "Q. When was the plan for dock C approved? A. I do not know, sir. Q. The filling went on from 1869 to 1871, did it not, on dock C? A. Yes, sir. Q. And it went on until you stopped by the injunction of the United States Court, did it not? A. Yes, sir." Is that true?

A. I apparently understood at that time that the injunction referred to that. At this time I do not recall that it did, or that I——

Q. Does that refresh your recollection?

A. No, sir; not at all as to any time of the injunction.

Q. You also testified before, in response to the following questions: "Q. Then the cost of that bridge may be in those items, may it? A. It is possible, sir. Q. Have you any idea what that bridge cost? A. I suppose it would cost perhaps \$5,000. Q. How long is it? A. I have been mistaken in my testimony in regard to the bridge; I did not understand what you referred to. I referred to a pile bridge built at one time for the purpose of bringing filling on to dock C, and my testimony was wrong with regard to that, also; because that was built before the time we were talking of." Does that refresh your recollection any in regard to that pile bridge at the south end of slip C?

A. It is just what I had in mind when I was testifying a

moment ago. The question which was asked me, and which I understood in my previous testimony, was with regard to the construction or cost of what we called the Randolph street viaduct, which was a structure costing a great deal of money. I didn't understand the question, and supposed it referred to the construction of the pile bridge which was built in the lake for the purpose of bringing filling over on to dock C, and you will see that my testimony was corrected to that effect.

Q. Where was that pile bridge built?

A. It was built not a great way from the breakwater running across the angle between the north line of Randolph street and the east line of the Illinois Central breakwater; and, as I said, my recollection is that it crossed the 3-22-187 southeast corner of slip C and then extended on to dock C. That is the bridge that I referred to a few moments ago.

Q. This map, number 11, was taken from the same memorandum, was it not, as the map you now introduce in evidence as Exhibit 3, aside from the soundings?

A. Apparently it was; it seems to be a duplicate, one of the other.

Q. This map, Exhibit 3, as to the soundings thereon, was made in what manner?

A. It was made in June, 1869.

Q. Did you put the soundings on there?

A. I did.

Q. No one else did?

A. It is possible there are some figures here placed by some one else; my answer is substantially correct, however. I would say all of the original figures showing soundings appear to have been made by me. I don't see any other figures than my own.

Q. Do you recall whether or not the docks north of Randolph street and the dock at 13th street is now used by the Illinois Central substantially in the same manner that they were used when you testified before, in 1887?

A. I do not know, sir, I don't remember what I did testify as to the use of those piers at that time, and I do not recall at this moment just how they were used.

Q. Do you know how they are used now?

A. The 13th street pier I should say was used principally for storing cars, for the making up of trains, for the purposes incidental to handling large numbers of cars in con-

Evidence before
Master.

nection with the terminal station. The piers north of Randolph street, in addition to such uses, are used in connection with the slips, for receiving freight from vessels and loading freight on to vessels. The slips are used, I notice, for mooring vessels during the winter season; seem to be laid up there, number of them, but I am not especially familiar with the use of those piers now, as I have no official connection with their use and only know incidentally of the matter.

Q. Do you know whether or not these docks or any part of them north of Randolph street are leased out to tenants?

A. Some portion is leased out, there are coal yards, I believe, and I think there is a transportation company that brings a good deal of salt here that has a lease of a portion of that.

Q. That is the north dock, is it not?

A. I think it is, sir.

Q. Joy Morton & Company?

A. I think that is it.

Q. Dock C is used for coal purposes, is it not?

A. My impression is that that is the principal use for that.

Q. The middle dock is used for lumber, is it not?

A. Well, really, sir, I don't believe that I am sufficiently well posted to answer those questions accurately, because I have had no occasion to examine this property or to know of its particular use, I only know incidentally.

Q. The south dock north of Randolph street is used in the same manner that the dock at 13th street is used, is it not?

A. I should think so, at the same time that dock is used for other purposes than this I have mentioned, for instance, last season there were a number of steamboats that used that for their point of arrival and departure; the Christopher Columbus, during the season, used that south pier at Randolph street. There is a lease, I know, made to the steamboat company for its use, and I, myself, took the boat on several occasions to make trips on the lake from that pier. And there were several other steamers that used the pier for the same purpose.

Q. There is a warehouse on the south pier, is there not?

A. There is a building, I do not know for what purpose, I suppose warehouse would be a proper term for it, but I do not know for what use it is at present employed.

Q. Did you learn how many passengers the Christopher Columbus carried?

A. I was on her one day and I was told there were 3,000 passengers that day.

Q. One of those trips up to Milwaukee?

A. Yes, I have no positive knowledge as to the number of people, I know she carried a great many people. I was on her a number of times and there were a great many people on the boat.

3-22-188 Q. She tied up at the south side of that south pier, did she not?

A. The south side.

Q. Since you testified in this case before, the main depot of the Illinois Central Railroad has been moved from north of Randolph street, down to Park Row, has it not?

A. It has.

Q. And since that time also, the B. & O. Railroad has ceased to be a tenant of the Illinois Central, has it not?

A. It certainly is not a tenant at the present time. I presume it has ceased since the time I testified, only I do not recall just when they left.

Q. The only railroad using the tracks of the Illinois Central road, are the Illinois Central and the Michigan Central, are they not?

A. For regular passenger purposes. The switch engines, I believe, of all roads in the city use those tracks for switching purposes.

Q. And all passenger business, other than the suburban, of the Illinois Central, is transacted now south of Park Row, is it not?

A. Yes.

Q. Since you testified in this case before, the Illinois Central Railroad Company has transferred its freight yards, to a considerable extent, down to a station below the city, known as Burnside, has it not?

A. Hardly transferred its freight yards; it has established a yard, a sorting and distributing yard near 87th street inside of the city limits, so that it is enabled to avoid bringing into the city as large a number of freight cars as it was obliged to at one time when the freight yard north of Randolph street was the only yard which the company had for that purpose. That yard was entirely inadequate, or became or proved entirely inadequate for the purpose, and it became necessary to establish additional yards. I wouldn't say that

vidence before
Master.

it has given up the use of this yard or intimate that in any way, because this yard is in use and is needed just as much as ever, but it is not large enough for the purpose.

Q. Since you testified in this case before, the round-house south of 14th street and east of the tracks of the Illinois Central has been taken down, and business theretofore carried on in that round-house has been transferred to another locality, has it not?

A. There are two round-houses at that point, one of them has been entirely removed and the engines formerly stored there are now stored at Burnside; the other engine house has been partially taken down, portion of it only remains. There is a house shown on this plat we were looking at marked "fifteen stalls to be built" a portion of that still remains, the other one on the map has been removed.

Q. That is, the one south?

A. The south round-house has been entirely removed, the north one partially remains.

Q. Did you ever make any soundings in the lake between 16th street and the Chicago river, prior to June, 1869?

A. I don't think that I did, except along the easterly line of the Illinois Central breakwater. I have no recollection of making soundings to any extent in the lake previous to 1869.

Q. Did you ever make any soundings subsequent to 1869, between Randolph street and 16th street?

A. I think I did.

Q. What year?

A. I should say that in 1871 or 1872 I took some soundings between Randolph street and 16th street.

Q. Did you put them in this book, Exhibit 2?

A. At the end or near the end of this book, I see there the several pages in which figures are given in my hand writing, my figures. I am of the impression that I took these soundings myself, but I am not positive as to that. I know that I took soundings between Eldredge Court and 16th street at one time, and I rather think that these are some of the soundings which I took, I think, however, that I have taken at some other times, other soundings.

Q. Do you know when you placed them in that book?

A. I do not recollect placing them in that book. I presume they were placed there at the time other soundings were placed in it, about February, 1872.

Q. Do you recollect whether the soundings you took were taken through the ice?

A. I remember taking soundings in the winter on the ice near Park Row, when I took them, I do not recall. I remember distinctly the fact of being on the ice and taking some soundings, but my recollection is not clear as to the 3-22-189 extent of the soundings which I took at that time, or what I did with the notes. I presume that these are the soundings that I took.

Q. Is this writing in blue ink in your handwriting?

A. That is the writing that I refer to as being in my handwriting.

Q. The figures in blue ink yours?

A. The figures in blue ink are mine, yes.

Q. In whose handwriting are the figures in black ink opposite the figures in blue ink?

A. Those were made by Mr. Nocquet.

Q. Here are some figures in red ink on the page headed "north line of 13th street 100 feet apart no crib;" whose figures are those?

A. Those all seem to be Mr. Nocquet's.

Q. Also on the opposite page?

A. On the opposite page also.

Q. Is that his writing at the head of the page?

A. Yes.

Q. Do you know whether Mr. Nocquet made any soundings for the Illinois Central Railroad about that time?

A. I think Mr. Nocquet was with me when I took soundings, what I suppose to be the ones noted in the book there.

Q. And were those soundings placed by Mr. Nocquet in the book that you refer to?

A. They were placed in this book, the soundings which you have before you, those figures were written there by Mr. Nocquet; whether they are the soundings which I say I recall taking at some place or not, I am not positive, I presume that they are.

Q. They were placed by Mr. Nocquet in the book at the same time you placed what soundings you did place in this book?

A. Yes, sir.

Q. At the head of the first page in blue ink I observe the writing "on north line of Eldredge Court soundings 200 feet apart." They indicate 200 feet apart going east and west?

A. Yes.

Q. And where did you start from, this breakwater that ran parallel with the tracks of the Illinois Central, south of Eldredge Court?

evidence before
Master.

A. Yes, that was started at the line of the Illinois Central breakwater.

Q. For instance, on the north line of Eldredge Court at the breakwater, the depth was 10 feet and 200 feet east from that breakwater would be 10 feet and five-tenths.

A. That is what the book shows.

Q. At that time did not the water of Lake Michigan stand inside of the breakwater than ran parallel with the tracks of the Illinois Central Railroad south of Park Row?

A. Well, I am unable to recall just how that water line was at that time.

Q. Under the heading, 160 feet south of the south line of Park Row, I observe you have here the figures 0, 5, feet, 44, 7 feet, and opposite, breakwater. As a matter of fact, did you not begin that measurement inside of the breakwater, and at a distance of 44 feet east of where you began, you there struck the breakwater with a depth of 7 feet?

A. No, sir; that breakwater is either the dotted line shown here, or the line of the old breakwater referred to. I stated there is an old breakwater.

Q. Are you sure of that?

A. I think I am.

Q. You think it could be in 1860, 11 feet deep, and a year afterwards be only 7 feet deep there?

A. I know the water was very deep along that old breakwater for a number of years—I know it was deep when the pile were driven there in 1856 and that washed out and the breakwater was damaged before I came here, and stood in quite deep water, I had occasion to know.

Q. Take it 535 feet north of the north line of 13th street, you have got here at the starting point 5 feet, 25, 7 feet, 50, 7 feet, 98, 6 feet 5 inches breakwater. I see on the next page 415 north, north line of 13th street there is the same memorandum statement, and I see 175 feet north of the north line of 13th street I see 280 feet north of the north line of 13th street, all terminating at different distances at the breakwater. I see north line of 13th street, and 118 feet south of the north line of 13th street, all terminating at a breakwater. Now, as a matter of fact, did you not begin your measurements of soundings inside of this old line of breakwater that runs parallel with the Illinois Central Railroad track, or did you begin your soundings on that breakwater?

A. The scale shows that the breakwater referred to is the one indicated by dotted lines. On the north line of 13th

street the book says it is 310 feet to a breakwater, 3-22-190 the scale shows it is 310 feet from the original Illinois Central breakwater to the dotted lines which indicate the position of the new breakwater. Evidently the dotted line breakwater is the one referred to.

Q. Then, at the time these soundings were taken the dotted line breakwater had not been constructed?

A. Apparently there was a breakwater along that line.

Q. And these soundings are the soundings of the depth of the water inside and west of that new breakwater?

A. They are shown by the book as being between the two breakwaters, yes, sir. There is a sounding south of Park Row; north of Park Row there is no breakwater referred to.

Q. You don't know what scale was employed in these soundings that appear on this Exhibit 3?

A. I don't think I understand the question.

Q. With reference to city datum?

A. The plane of reference? No, I do not; I couldn't say. I would only say this, that I am satisfied it was above city datum; how much above I am unable to state.

Q. At the time this exhibit 1 was made, the Illinois Central Railroad Company was contemplating the construction of three docks such as were subsequently built north of Randolph street, were they not?

A. The company was contemplating the construction of three docks or piers, but I am of the impression that the two south piers were substantially built upon a somewhat different plan from what was at that time proposed, but I am not positive as to that; that is my impression.

Q. I will ask you whether or not these spaces enclosed with parallel lines, running from the bottom of this Exhibit 1, are not substantially the spaces that are now occupied by the docks north of Randolph street?

A. You refer to these spaces 20 feet square?

Q. No, these large spaces.

A. Those I understand to show the places where they at present exist.

Q. And those lines were put on there in 1872, were they not?

A. The pencil lines? Oh, no, sir; I don't suppose they were. I take it those lines have been put on at some subsequent time.

Q. How do you know that?

A. I do not know; that is my impression.

vidence before
Master.

Q. I supposed, from your testimony, that everything on this map, Exhibit 1, is as it was originally made.

A. I did not intend to testify that those pencil lines were on there when the map was originally made.

Q. Do you know, as a matter of fact, when they were put on?

A. I do not.

Q. Have you heard when they were put on there?

A. I have not; that is, I do not recall that I have. I have no recollection on the subject.

Q. Do you know who put them on there?

A. I do not.

Q. On the space enclosed within these parallel lines at the left or north end of this map, I observe a number of check marks in each square; duplicate check marks; do you know what those indicate?

A. I do not know what they indicate; I can imagine it, but they are no part of the original map.

Q. Do you know when they were put on there?

A. I do not.

Q. I observe, on the original map here, outside of this enclosed space at the north or left hand of the map, pencil marks, indicating feet and tenths of feet; do you know when they were put on there?

A. I do not.

Q. Do you know whether they were placed on there when the map was originally made?

A. I do not.

Q. They may have been?

A. They may have been. At this moment I do not know what they refer to; what they mean. I haven't examined them before. Those I did not consider a portion of the original map. Those are simply pencil marks that are liable to be placed on any map at any subsequent time.

Q. They appear upon the map; they may have been placed there at the time?

A. I do not know. I thought at first they were the average depth of water, but they don't seem to be that.

Q. They are different figures.

A. But I thought at first that the average of the four at the corners, but they do not seem to be that. I don't know what they are.

3-22-191 Mr. Hamline: I wish you would have put on the copy in red ink, or something to distinguish them as pencil marks, these figures.

Q. In 1869, the completion of dock C was a part of the original plan that involved the construction of docks running out east into Lake Michigan, at right angles from dock C, did it not?

A. If I understand your question right I should answer in the negative. Dock C, as it is called, was planned long before these piers running into the lake were contemplated, as I remember it, and was no part of the construction into the lake. My recollection is that when dock C was planned, it was supposed to be the extent of the company's work in that direction, but that was before the passage of the Lake Front Act, and that the company did not expect to build further into the lake; that is my recollection.

Q. But while you were still completing dock C after the Lake Front Act was passed, you then developed a plan for filling in the lake and constructing docks east from dock C into Lake Michigan, did you not?

A. Yes.

Q. And with some slight changes in width those docks were subsequently constructed as they now stand?

A. That is between the Chicago river and Randolph street?

Q. Yes. That right?

A. There were three piers afterwards built between Randolph street and the Chicago river, although not on the plan that was originally proposed.

Q. Well, substantially that same plan, excepting as the matter of width of the docks?

A. Well, no, sir; the original plan you will see only contemplated one pier and a half between Randolph street and the river; the second pier extended some distance below Randolph street, and the original plan contemplated the extension of those piers farther into the lake than they were afterwards built, so that it is not correct to say that the piers as they at present exist are upon substantially the plan originally proposed.

Q. Calling your attention to Exhibit 3, that you have introduced in evidence, and the piers marked thereon, or docks, in red ink, north of Randolph street: they were placed on there is 1871, as I understood?

A. Not by my testimony.

Q. When were they placed there?

A. I do not know. I have not intended to testify at all as to the time when those lines were placed there, I think.

vidence before
Master.

Q. You don't know when they were placed there?

A. No, I don't recall at this moment, when they were placed there, but from the fact that pier number 1 as actually built is not of the dimensions as shown on this plat Exhibit C, in red lines, and as pier number 1 was started in 1872, it is pretty clear that those red lines must have been proposed for the piers previous to 1872 and subsequently modified.

Q. And as modified, the docks 1, 2 and 3 north of Randolph street were subsequently built?

A. As modified and as they at present exist.

Q. And that modification, you think, in the plans, took place prior to 1873?

A. So far as pier number 1 is concerned, yes, but as to piers number 2 and 3 I am not certain as to when the final plan for those piers was determined upon as they were not built for several years after that.

Q. Then, prior to 1872, when you commenced the construction of the north pier, you had in contemplation the building of a series of piers, running east from dock C that was then still in process of construction, which would be substantially of the dimensions shown in the red lines marked on Exhibit 3?

A. Substantially to this effect, that three piers have been built, and three piers are shown on Exhibit 3, if that is the number of the Exhibit, but as I have stated, this Exhibit shows one of those piers extending considerably beyond Randolph street, and therefore I would hardly consider it accurate to say that the piers were built substantially on that plan. I think they were built radically different from that plan.

Q. Well, Mr. Morehouse, you had charge of this whole business at that time, didn't you?

A. No, sir; I had charge of the office and directly under the chief engineer.

3-22-102 Q. Aren't you the man that drew the maps and plans?

A. Well, I think so.

Q. Now, in 1872, as early as the beginning of 1872, did not the Illinois Central Railroad contemplate building three piers north of Randolph street running out east from dock C for 1,000 feet, similar excepting as to width, to the piers that have subsequently been built there, and now occupy that territory?

A. The company contemplated building three piers ex-

tending eastwardly from the Illinois Central breakwater, or the east line of dock C between Randolph street and the river.

Q. As early as June, 1869, did they not?

A. No, sir, I think not; I don't think that plan was adopted as early as that.

Q. Well, as early as 1871?

A. I do not know as to that date.

Q. Did not your road submit to the United States government a plan similar to the docks marked in red ink on this Exhibit 3 as early as the year 1871, for their approval?

A. I do not know.

Q. Will you say they didn't?

A. No, sir, I have no recollection as to the date when such a plan was submitted.

Q. You do know that a plan was submitted, do you not, for their approval?

A. Yes, there was a plan submitted.

Q. That was about the time the injunction suit was started, wasn't it?

A. I am unable to recollect it, sir, in any way. It is not a matter that I had personally to do with, and the matter has no place in my memory.

Q. It was prior to 1872, was it not?

A. I could only say that it was, if I am informed that certain events happened before or after that time; I couldn't state the date, sir, at all.

Q. The Illinois Central Railroad Company was enjoined in July, 1871. Were not these plans submitted to the United States government about that time, with reference to settling that dispute?

A. I couldn't state from my own recollection, presumably they were, but I couldn't say that as a fact. I don't think I had anything to do with the matter of the presentation of the plans although, of course, I must have known of it in a general way.

Q. You had nothing to do with submitting the plans to the United States government?

A. I think not. I remember the fact that plans were submitted, and I remember that there was a meeting of some of the principal officers of the engineer department here for the purpose of determining the dock lines, and I know that we submitted plans in connection with that, but when that meeting took place, I have no means of stating. I do not recall the dates at all.

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Q. What year did you come to Chicago?

A. 1857.

Q. I will ask you if you know whether or not the breakwater of the Illinois Central Railroad Company, in 1857, was then in existence as appears on Complainant's Exhibit C?

A. This map seems to indicate correctly the position of the Illinois Central breakwater as it was in 1857.

Q. Did you have anything to do with the construction of this slip B?

A. That was completed before I came to Chicago; it was practically completed, I think there was some work going on in connection with it, but my recollection is it was practically completed so far as being a slip is concerned.

Q. Calling your attention to Complainant's Exhibit A, Wheeler map of 20th of July, 1869, I will ask you whether or not that shows the shore line north of Randolph street in 1869, as you recollect it?

A. I should think that was an accurate presentation of it.

Q. And you observe, in what is now known as dock C, a wavy line beyond which is marked in progress of being filled with earth; is that about the condition of that dock C at that time?

A. I presume that it is an accurate representation; I remember that dock in all courses of progress, and just how it was in any particular month in 1869, I am unable to state. I have no doubt this is a correct representation.

Q. Now, I will call your attention to the pier projecting out east from that dock, marked "Crib work built in 1869, 808 feet;" I will ask you whether or not, as a matter of fact, that is not the extent of the pier cast in 1869, in July?

A. As I stated before, I think the United States south pier was badly damaged by storms prior to 1869 and the easterly end had been washed away; just what would be considered the east end of that pier would then have been a matter of opinion, would have depended on the use to which a person intended to apply his information. One person might have terminated his measurement at the point on the pier where it is entirely intact and sound; another person might have measured to the extreme end of the pier as it was below the surface of the water. I can, therefore, understand why there should be a discrepancy in maps showing the length of the south pier at that time.

Q. As a matter of fact, was the south pier built out beyond this solid work in 1869, or was the solid work as shown

here, and was that between the dotted lines extending eastwardly 835 feet at that time in contemplation of being built rather than in existence?

A. I am unable to state with regard to the south pier except as I see located on the map. My recollection does not enable me to say where the easterly end of the south pier was, with reference to the Chicago light-house, whether it was east or west of it. I do not remember.

Q. Calling your attention to this map marked Complainant's Exhibit P, to the south pier thereon, I will ask you whether or not that shows substantially the length of the south pier with relation to the west end of what is now slip C, and the Illinois Central breakwater in the year 1865?

A. I am unable to say anything with regard to the exact length of the south pier, for reasons that I have stated.

Q. I now call your attention to Complainant's Exhibit D, showing your docks as proposed—proposed docks of the Illinois Central Railroad Company, with soundings made in April, 1871, and the south pier at that time projecting out considerably farther, and also showing this dock C marked, in progress of being filled with earth. I will ask you if that is substantially the condition of the south pier in April, 1871, if you recollect?

A. I am unable to recall the length of the south pier at any particular date. I do not have in mind at this moment anything by which I can do that.

Q. Do you recall whether or not any of the breakwater of the United States government now forming the outside east breakwater south of the Chicago river, was built below the water's even and up to the surface of the water prior to 1871?

A. I don't remember when the United States breakwater was started; it seems to me that it was in 1870 or 1872, those are the dates I have in mind at this moment, but I wouldn't be certain as to either of them.*

Q. Do you recollect whether or not dock C was in April, 1871, substantially in the condition as it is delineated upon this exhibit of complainant's? To-wit, part of it in progress of being filled with earth?

A. I can not speak definitely as to the condition of that dock at any of those dates—any particular date.

Q. It may have been at that time in that condition.

A. I think very likely it was.

Q. What did you have to do, personally, with the making of this map, Exhibit 1?

vidence before
Master.

A. I was in charge of the office work; it was my duty to supervise it, and this map was made by Mr. Nocquet, the draughtsman, under my general charge. I had nothing to do with the map in detail, except to see that it properly made and complied with the conditions necessary for a map of that sort.

Q. Did you, personally, make any comparisons between the data from which he made the map, and the map as he made it? That is, you, yourself?

A. I do not recall whether at that time I did or not. It is a matter of detail I have no recollection about.

Q. Do you, of your own knowledge, know whether these red figures that appear in this book, Exhibit 2, in the handwriting of Tustin, are supposed to be the actual depth of the water, or the actual depth of the water with reference to the plane of city datum?

A. The red figures are those which show actual depth of the water, and the soundings indicated there.

Q. Without regard to the city datum?

A. Without regard to the city datum.

Q. How do you know they do?

3-22-194 A. The book shows it, and I know that the book was so made out: the black figures show reference to the city datum.

Q. Do you know whose handwriting that is? (Showing witness paper.)

A. Part of it is Mr. Nocquet's, and the writing at the bottom is mine.

Q. When was that made?

A. I think it was made at the time the map was made, in March, 1872.

Q. What is at the bottom in your writing?

A. My recollection as to this paper is this: that when the map was completed, Mr. Nocquet wrote off the caption of the map as it appears at the top of this slip, and submitted it to me, as to whether it was the proper caption or not, and that I amended it in the words given below. That is my recollection of that slip of paper, as I see it now; I think I recall the fact that Nocquet showed it to me, and that I amended it in that way. Or it might have been that that was what I intended to have put in the book itself; I wouldn't say it is for the map or for the book, but I have a distinct recollection now that I saw that paper, about Mr. Nocquet reading off something of the sort and submitting it to me,

and his original writing is crossed out there and mine is to be substituted for it.

Q. Do you know whether that attached to the book or the map?

A. I do not know; I couldn't say. Neither one of those was put on the map, it seems.

Q. Calling your attention to the note on this memorandum; the red figures are soundings taken on the ice in February, 1872, and are expressed in feet and tenths and are reduced to the city datum, over which there are some lines as crossing out that sentence, and below there the memorandum; the red figures show depth in feet, etc., of water below city datum, and are from soundings taken on the ice in February, 1872. This last memorandum is your handwriting?

A. It is.

Q. The former memorandum scratched out is in Nocquet's handwriting?

A. It is.

Q. Now, then, did that refer to the map or to the book?

A. It must have referred to the map, I see on reading this over, and not to the book. It is not true of the book; it is true of the map.

Q. Nocquet made the map, however?

A. He made the map.

Q. And he put the figures on the map?

A. He did.

Q. You put none of the figures on the map?

A. I think there are no figures on that map which I put there.

Re-direct examination.

Q. I will call your attention to the map put in evidence before the original final hearing in this case, marked "Defendant Illinois Central Railroad Company's Map number 10," and subsequently known as the Morehouse map, and state if you recognize this is the map which you produced when your deposition was taken before—the former trial?

A. I think this is the map.

Q. When you speak in your testimony here to-day of dock C, what do you mean by dock C?

A. Dock C, as referred to in my testimony this morning, and in the questioning, is shown in the so-called Morehouse map just south of the Chicago river and east of the slip marked "C." Dock C is marked "C, built 1867."

Evidence before
Master.

Q. The red line on this Morehouse map, as I understand from your previous evidence, shows the line of the break-water in 1869?

A. That is correct.

Q. Can you state when pier number 1, marked on the Morehouse map "Built 1872 and 1873," was enclosed by piling; whether it was before or after the first of January, 1873?

A. I couldn't state positively as to the entire enclosure of that pier. My recollection is that while it was enclosed by piling in 1872, that for a considerable time there was an opening in the piling through which scows loaded with material passed for dumping, and when the piling was entirely closed I am unable to state from my recollection.

Q. Where was that opening left?

A. I do not recall now; I think there was more than one opening.

Q. Can you state what portion of the work had 3-22-195 been completed or done before the year 1873, upon that pier?

A. I could not say definitely; my recollection is that most of the work upon the pier was done in 1872, but I am not positive as to the proportion of work that was done that year.

Q. You have testified this morning that portions of these piers 1, 2, 3 and dock C, are used for the storage of coal and salt and lumber; will you state how those articles are brought to those wharves or piers?

A. Salt is brought by vessels, coal is taken away by vessels, whether any of it is brought by vessels or not, at this time, I do not know. I know that coal is loaded onto vessels and taken away from there, and as to the lumber, I have no direct personal knowledge at this time as to how that is handled there. I suppose a portion of it is brought there by vessels, and maybe taken away by vessels, but I have no personal knowledge as to that point at this time.

Q. In this memorandum book introduced in evidence the other day, marked "Defendant's Exhibit 2," I find on one of the pages headed "13th street (100 feet apart) two columns of figures, one column in red ink and the other in black ink;" in whose handwriting are those figures?

A. In the hand writing of James Nocquet.

Q. Both columns?

A. Both columns.

Q. Do you know where he got the figures from?

A. I am not positive.

Q. Do you know?

A. I do not know positively, no, sir.

Q. Do you know anything at all about any soundings having been made there along the line of 13th street in the lake, personally do you know?

A. I know that at one time I took soundings in vicinity of 13th street, whether these are the sounding I took or not, I am unable to state. I think they are not, because these appear to extend further into the lake than the sounding which I took. I do not think, with the exception of the soundings I took in 1869, that I ever took soundings extending into the lake as far as those appear to extend; that is, at that point.

Q. These soundings, pages in the back part of the book in blue ink and in black ink, parallel columns, as I understand it, were soundings made by you?

A. I think those soundings must have been made by me.

Q. And those soundings, as I understand it, were confined to the space between the old breakwater on or near the shore and another breakwater farther out in the lake?

A. I remember making soundings in that way, and the book shows that those soundings are located between those breakwaters.

Q. I will now call your attention to the map introduced in evidence before, the former hearing, marked "Defendant Illinois Central Railroad Company's Exhibit Map Number 12," containing this marginal note: "Copy of this tracing accompanied letter to the Chief of Engineers, U. S. A., dated November 3, 1880. Docks indicated by red lines show original plan approved in 1871, those in black show the modified plan approved November, 1880." Do you know anything about this map, or the origin of it?

A. I don't think I do, except as I see the map now. In 1880 I had nothing to do with the engineer department, and I wouldn't officially know anything about such a map.

Q. Will you state whether you do know that any change was made in the plans for the piers north of Randolph street that were first approved by the engineer department?

A. My recollection is that a plan was approved by the engineer department and that subsequently that plan was abandoned and another plan made and approved, but my recollection is not clear or precise with regard to that matter.

Q. I now call your attention to the map introduced in

vidence before
Master.

evidence the other day, marked "Defendant's Exhibit 1." I notice that on the northerly end of the map there are some figures in pencil and other marks in pencil. Will you state whether those pencil marks and figures were put upon the map when it was originally made, or afterwards, if you know?

A. I suppose you refer to the pencil marks on the map directly south of the United States south pier and 3-22-196 on the area not covered substantially by pier number 1. I do not know when those pencil marks were placed there. I judge that they were placed there, or many of them, when the engineer was putting the amount of work that had been done in filling this pier, but I do not know certainly as to that, and I do not know when they were placed there. I should suppose they were placed there during the construction of the pier, or immediately after the construction of the pier.

Mr. Hamline: I move the answer be stricken out as being entirely supposition.

Q. State in regard to the figures.

A. As to the figures in pencil east of pier number 1 and south of the United States south pier, I should have to study those a little while before I could make up my mind as to what they indicate.

Q. Can you tell in whose handwriting those figures are?

A. I couldn't say positively; I don't know when they were placed there.

Q. Do you know whether, after the construction or during the construction of the three piers north of Randolph street, piers number 1, 2 and 3, there was any dredging done by the company in the two slips between the piers?

A. My recollection is that after pier number 1 was completed the slip was dredged there to the requisite depth of water. The other piers, 2 and 3, were constructed after my connection with the engineer department terminated, and I do not know anything about that. I presume that slips were dredged; they necessarily were dredged to a depth of water deemed necessary. Considerable dredging would have to be done.

Copies of the three original exhibits, defendant's Exhibits 1, 2 and 3, are substituted in place of the originals.

The figures in pencil shown on defendant's Exhibit number 1, on that part of the map lying east of the east end of pier number 1, are shown on the copy, which has been substituted for the original, in black ink.

Re-cross examination.

Q. The coal yards, lumber yards you have testified to as occupying the piers north of Randolph street are carried on by tenants of the Illinois Central Railroad, are they not; not by the railroad itself?

A. The land is leased to two different parties.

Q. And they carry on coal yards and lumber yards for their own private business on that land?

A. They conduct the business.

Q. When you dredged south of pier number 1, you dumped the material over into the inside of pier number 1, did you not, and this filled it up?

A. I don't recall in particular; I presume that was done at the time.

Q. That is usually the case in building a dock, is it not?

A. Yes, sir.

Q. As I understand, when you want to build a dock, you first dump material in the water until it gets too shallow for boats to carry material, then you build an enclosing crib work and thereafter you dredge from the outside of the crib work and throw the material into the enclosed dock, and then when you get through with that you bring other materials from outside?

A. That is substantially the method.

Re-direct examination.

Q. Is the filling done before the enclosure, or after?

A. The filling, so far as the depth of water will allow, is done before the enclosure is completed; that is, the scows come in from outside and deposit material until the water shoals to that depth when the scows will not float there; then, of course, material has to be brought in some other way.

Q. When is the exterior piling done?

A. Most of it would be done first, leaving an opening for these boats to get in.

Mr. Hamline: I renew the motion to strike out the maps and note-book offered in evidence as Exhibits 1, 2 and 3, as being incompetent, immaterial and irrelevant.

Adjourned to Friday, May 3, 1895, at 10 o'clock A. M.

Idence before
duster.

3-22-197

May 18, 1895.

Met pursuant to agreement.
Present as before.

JOHN C. WELLING, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer:

Q. How long have you resided in Chicago?

A. About something over 20 years; between 20 and 21 years.

Q. What is and has been your occupation?

A. Prior to October 20, 1890, I was the chief accounting officer of the company.

Q. What company?

A. Illinois Central Railroad Company.

Q. Since then?

A. Since then I have been Vice-President.

Q. State whether you have general supervision and charge of the accounts?

A. Yes, I am acting comptroller of the company.

Q. I wish to call your attention to the biennial report of the State Treasurer to the Governor of Illinois, dated November 1, 1894, published at Springfield, Illinois, by the Stae Printer, and particularly to page 26 of that report, purporting to be a statement of the gross receipts of the Illinois Central railroad from March 24, 1855, to April 30, 1894, inclusive, and amount paid into the State Treasury on account thereof; will you state whether you have examined that statement and compared it with your accounts, and if so, state whether it is or is not correct.

A. I have compared it with the accounts, and it is correct with the exception of the notations made on those pages.

Q. Just state what those are.

Mr. Hamline: Objected to as immaterial and irrelevant

A. In the return for the six months ended April 30, 1868, the amount under the head of gross receipts, stated as \$2,780,043.05, should be \$2,780,043.65; for the six months ended April 30, 1877, the amount of gross receipts stated as \$1,996,379.60 should be \$1,996,359.66. In the return for the six months ending April 30, 1884, gross receipts are stated as \$2,358,148.86, the amount should be \$2,358,148.93. The return for the six months ending April 30, 1886, gross receipts

are stated as \$2,468,711.57, the amount should be \$2,467,711.59. In the column of amount paid into the State Treasury, the return for the six months ending April 30, 1888, should be \$197,181.41 instead of 191,181.41. The total of amount paid into the State Treasury is stated at \$14,517,359.55, this should be \$14,523,359.55.

Q. Will you state whether you have made a copy of this statement of gross receipts and amount paid into the State Treasury?

A. Yes, I had a copy prepared.

Q. Have you prepared it so as to know it is correct?

A. Yes, this has been very carefully compared.

Mr. Ayer: I propose to offer that in evidence to be marked Defendant's Exhibit 4.

Mr. Hamline: Objected to as immaterial and irrelevant.

Q. Will you state whether you made, or supervised the making of, the returns by the railroad company to the State Treasury of these receipts, or by whom were these returns made?

A. These returns were made and sworn to by me; have been made and sworn to by me since 1876 on to date.

Q. Have you got, and can you state the form in which those returns are made, and whether the amount received from rent of property was stated separately?

A. It is stated separately.

Q. Can you give us the form in which the statement was rendered?

A. I have a copy of the return made for the six months ending October 31, 1894.

Q. Read it.

Mr. Hamline: Objected to as immaterial and irrelevant.

A. Illinois Central Railroad Company. Statement of gross receipts for the six months ended October 31, 1894.

I will read the receipts: Freight, passenger, mail, 3-22-198 express, excess baggage, transportation of milk, train privileges, rent of property, rent of docks, rent of tracks, Cairo wharf boat, switching demurrage, team scale fees, dockage, parlor cars.

Q. What did that rent of docks include?

A. It included the amount received from the rent of docks in Chicago.

Q. What docks?

A. The docks at the foot of Randolph street; don't know as I can describe them in detail.

Evidence before
Master.

Q. Do you whether it did include the rent of all the dock property owned by the Illinois Central Railroad Company in Chicago?

A. Yes, it included the total amount received from rent of any docks in Chicago, was credited to this account.

Q. And reported to the State Treasury in that form?

A. Yes, sir, reported to the State Treasury in that form.

Q. How long a period has that been the form in use?

A. For 20 years, at least.

Q. On the amount received from rent of docks, how much has the railroad company paid into the State Treasury annually?

A. I am not prepared to state that off-hand. For the six months embodied in this report, that is, the six months ended October 31, 1894, is——

Q. I don't mean the amount, but what per cent?

A. Seven per cent, of the gross.

Mr. Ayer: The form which the witness has produced is offered in evidence as "Defendant's Exhibit 5."

Mr. Hamline: Objected to as immaterial and irrelevant.

Cross-examination:

Q. You don't know exactly what docks this item, rent of docks, covers, in particular, do you?

A. I know that it covers the rent of all docks in the city of Chicago.

Q. Do you know which particular docks that you have in the city of Chicago it does cover?

A. Yes.

Q. Does it cover the docks at 16th street?

A. No.

Q. Does it cover the dock at 13th street?

A. No.

Q. Does it cover the dock on the west side of slip A?

A. Yes.

Q. Does it cover the dock on the east side of slip A?

A. Yes.

Q. Does it cover the dock on the east side of slip B?

A. Yes.

Q. Does it cover the dock on the east side of slip C?

A. Yes.

Q. Is pier number 3 rented out to anybody, being the south pier north of Randolph street?

A. Portion of that pier is rented.

Q. Which portion?

A. I am not very clear about that.

Q. Are you sure any of it is rented?

A. It is my impression we have something rented in here.

Q. Where the wooden warehouse is?

A. I am not certain about that.

Q. You are not clear and definite in your recollection whether any part of pier number 3 is rented out by the Illinois Central?

A. No, I am not certain.

Q. Are Mueller and Raber still tenants of the dock just east of slip C, running parallel with it?

A. I am not aware of that, I haven't attempted to keep a record of these individual tenants.

Q. As a matter of fact, James Rathburn & Company moved off pier number 2?

A. I think they have.

Q. So that there is no tenant on pier number 2 at the present time?

A. I am not certain about that. My impression is there is a tenant there, but I am not certain.

Q. The Michigan Salt Company are still tenants of the dock immediately east of slip C, are they not? Joy, Morton & Company?

A. I think the lease runs to the salt company.

Q. Lord & Bushnell also have their lumber yard out on the dock immediately east of slip C, have they not?

A. Yes.

Q. Who is the coal firm that has the coal yard on the dock immediately east of slip C?

A. I think the Independent Coal Company; another coal company, I can't think of the name of it; they have changed their names.

3-22-1909 Q. As a matter of fact, none of the property south of Park row and north of 16th street has been leased out, or is leased out to any tenants excepting the use of the tracks north and south by the Michigan Central railroad?

A. Those piers are not rented.

Q. None of them?

A. No.

Evidence before
Master.

Re-direct examination:

Q. You say that you do not know whether pier 3 north of Randolph street is now occupied by any tenant; do you know whether or not it has been occupied, or the south portion of it, for dock purposes by various steamboats, in past years?

A. Yes, I know it has been, and may be now.

Q. Do you know whether or not all the revenue which has been received by the Illinois Central Railroad Company for the use of those slips and docks, has been reported to the State and the seven per cent. paid upon it?

A. It has been so reported and the seven per cent. has been paid.

May 18, 1895.

WILLIAM L. TARBET, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer:

Q. Please state your name, age, residence and occupation.

A. William L. Tarbet, residence, Chicago; occupation, civil engineer.

Q. How long have you resided in Chicago?

A. About five years.

Q. Will you state whether you were connected in any way with the Illinois Central Railroad Company, if so, in what capacity and how long have you been so connected?

A. I have been employed as assistant engineer about three years.

Q. In the office of the chief engineer?

A. Yes, sir.

Q. What experience have you had as civil engineer?

A. Well. My first work was done about 14 years ago, 1881, I think, I commenced with the railroad. I have done that kind of work off and on ever since.

Q. Will you examine the tracing now shown you, marked plat and record of soundings taken April 30 and May 1, 1895, by C. E. Grafton and W. Tarbet, assistant engineers, I. C. R. R., and state what that tracing is?

A. This is a plat that I made on which I recorded the soundings that were then taken around the dock line from slip A, B, C, D, E, and around the intervening piers on those days, April 30 and May 1, 1895?

Q. Did you take those soundings personally?

A. Yes, sir, with assistance.

Q. With whose assistance?

A. Mr. Grafton assisted me and Mr. Scott and Mr. Sloane and two boatmen, I don't know their names.

Q. Did you make a record of the soundings as they were taken?

A. I recorded them all, yes, sir.

Q. Will you state whether the depths as they were ascertained were afterwards reduced to the plane of Chicago city datum?

A. They were, yes, sir.

Q. Who did that?

A. I did.

Q. What are the figures that are placed upon this tracing, what do they show?

A. These figures show the depth of the water with relation to Chicago city datum—below Chicago city datum.

Q. Have you any knowledge about the dredging in these slips here between the piers?

A. Personally I have not.

Q. Who made this map?

A. I did.

Q. You transferred the figures to it from your notebook?

A. Yes, sir, making the corrections to city datum.

Q. Will you state whether these measurements 3-22-200 were made carefully and accurately?

A. They were.

Q. And accurately transcribed?

A. Yes, sir.

Mr. Ayer: This tracing is offered in evidence, to be marked "Defendant's Exhibit 6."

Mr. Hamline: I object to the offer as incompetent, immaterial and irrelevant.

Q. I will ask you how you made those soundings?

A. Soundings were made with a twenty-foot pole from a boat.

Q. How were the soundings expressed by these figures?

A. Feet and tenths.

Evidence
Master.

Evidence before
Master.

Q. I now call your attention to another tracing marked "Plat and record of soundings taken March 12 to April 30, 1895," by C. E. Grafton and W. L. Tarbet, assistant engineers I. C. R. R., and state what that tracing is.

A. This tracing is a plat made by me in which I have recorded the depth of the water below city datum around the 13th street pier and Weldon slip and the intervening dock line.

Q. Sixteenth street slip?

A. Weldon slip, we call it.

Q. What are shown upon that map?

A. This map shows the outline of the docks, slip and the depth of the water below city datum, taken at the edge of the dock, 10 feet distant, 25 feet distant, 50 feet distant, 75 feet distant, intervals of a hundred feet.

Q. What do the figures express that are placed upon that tracing?

A. They express the depth of the water below city datum in feet and tenths of a foot.

Q. Who made the soundings?

A. Myself and Mr. Grafton, Mr. Sloane and Mr. Scott and the two boatmen.

Q. Who made the notes of the soundings as they were taken?

A. I made them all.

Q. Who transferred them to this map?

A. I did.

Q. How were the soundings made?

A. Made with a twenty-foot pole from a boat.

Q. State whether they were carefully taken.

A. They were carefully taken.

Mr. Ayer: I offer that tracing in evidence, to be marked "Defendant's Exhibit 7."

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

Q. You have marked upon this last map, "Slip at the south end of the map called Weldon Slip;" state where that slip is and what it is.

A. That slip extends north from the north line of 16th street produced—I don't remember how long it is; it is about 150 feet wide, I guess.

Q. Know whether it was formally called 16th street slip?

A. I have never heard it so called. Possibly.

Q. It is the only slip there, isn't it?

A. Only one, yes, sir.

Cross-examination by Mr. Hamline:

Evidence
Master.

Q. This place where the words "Weldon Slip" are delineated on the map is water, is it not?

A. Water, yes, sir.

Q. When you took these soundings you made a memorandum in a note book, did you?

A. Yes, sir.

Q. You got that note book with you?

A. I have, yes, sir.

Q. Now, these soundings were all taken between the 12th of March and the 30th of April?

A. Yes, sir, inclusive.

Q. South of 12th street?

A. Yes, south of 12th street, or south of Park row.

Q. And up there north of Randolph street they were taken on two days?

A. Yes, sir.

Q. The 30th of April and the 1st of May?

A. Yes, sir.

Q. And did you keep track of the stage of water on the days these soundings were taken?

A. Yes, sir.

Q. How did you do that?

A. We had a bench established. We established a

3-22-201 Q. You yourselves?

A. Yes, from the city bench at the corner of Park Row and Michigan avenue we ran the levels from the corner of Park Row and Michigan avenue at the city bench that are established on the curb stone down to the water edge and read from that and also each day compared with the government record taken at the foot of Randolph street. Compared it with the record that is taken by the government employes.

Q. And these figures that appear on this map are not the figures of the actual depth of water, for instance, on the 12th day of March?

A. No, sir.

Q. Or any day between the 12th of March and the 1st of May?

A. No, sir; the gage never registered zero.

Q. How much above city datum was the stage of the water in Lake Michigan on the 12th day of March?

vidence before
Master.

A. (Referring to book) March 12th it was one-tenth above city datum, one-tenth of a foot, that is our record. The government record was a tenth and three-hundredths.

Q. How was it on the 30th of April?

A. Thirtieth of April it was .032, thirty-two hundredths of a foot above datum.

Q. And May 1st?

A. That is three-tenths.

Q. Three-tenths of a foot?

A. Yes, sir; above datum.

Q. Do you know a thing about the comparative stages of water in Lake Michigan?

A. As I have been told, only.

Q. Do you know as compared with prior years that the stage of water between the 12th of March and the 1st of May this year was very low?

A. Yes, sir; and since I think of it, I took the gage of water myself, I think, two years ago and it was about two feet higher than at present.

Q. And is it not your opinion that the low stage of water that you found there at the date you took these soundings was due to the extraordinary dry spring we have had prior to the month of May?

A. I didn't think anything about that.

Q. We have had a very dry spring, have we not. Very few rains prior to the 1st of May?

A. I think that is true, yes.

Q. Do you know, as a matter of knowledge, possessed by engineers who have to do with water levels on the lake that the lake is always lower in the winter and until it gets the effect of the spring rains?

A. I have understood so; yes, sir.

Q. Then in your opinion wouldn't the extremely dry spring we have had have an effect upon the stage of the water in Lake Michigan during the month of April, 1895?

A. Well, in general, I should say yes. Though I never have kept any record of those things.

Q. That is your understanding, however?

A. I suppose so.

Q. You have not, in making this map, delineated upon the slips that which is imposed upon them at present, have you, in the shape of tracks and buildings, have you?

A. No, sir.

Q. Do you recollect that there is some sort of a composite structure on the east end of pier number 3.

A. I do; yes, sir.

Q. Half ship and half building?

A. Yes, sir.

Q. Called the Argo?

A. The Argo.

Q. And then there are some sheds on the south side of pier number 3?

A. Yes, sir.

Q. Who told you to make this drawing, these two drawings you have exhibited?

A. Mr. Wallace gave me directions to make these.

Q. Whose he?

A. Chief engineer.

Q. You received no directions to indicate upon those piers buildings and tracks and other structures that now stand upon them, did you?

A. No such direction; no, sir.

Q. You marked here on the pier east of slip A "Elevator A;" you haven't attempted, however, to delineate upon that pier the dimensions of elevator A, have you?

A. No, sir.

Q. Nor have you delineated the dimensions of elevator D?

A. No, sir.

Q. As the same should appear on the pier east of slip B?

A. I have not.

3-22-202 Q. Those elevators A and B, referred to by these designations, are the same that have been down there for a great many years, are they not?

A. Ever since I have been in Chicago.

Q. They are the only two that are on any of the land east of the west line of the Illinois Central right-of-way north of Randolph street, are they not?

A. The only two.

Q. Take, for instance, this figure, "13 feet and 6 inches," about the center of slip D; that represents the depth of the water either on the 30th of April or the 1st of May at that particular point, less the difference between the stage of the water of that day and the city datum?

A. It does. It is 13 feet and 6-10, not inches.

Q. But the actual depth of the water is as much greater

Evidence before
Master.

as the difference between the stage of the water and Chicago city datum on that particular day?

A. It is.

Q. What are these things here that project out south of this pier number 3, and marked by dotted lines?

A. They are some structures on piling that I think belong to the government.

Q. They are on piling?

A. Yes.

Q. You don't know who they belong to?

A. I do not.

Q. The Illinois Central makes no claims to them; do you know?

A. Don't know anything about that.

Q. You don't know anything of your own knowledge who it belongs to?

A. I do not; no, sir.

Q. All the rest of this that is within the enclosing lines is filled up solid above the water of Lake Michigan, is it not?

A. Well, in general, yes, sir. There may be some points and edges that have been washed out; so you couldn't say they are filled up solid.

May 18, 1895.

WILLIAM L. MARSHALL, a witness called on behalf of defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. You have been called as a witness for the State, and have already given your testimony, have you not, in this case?

A. Yes, sir.

Q. I wish now to call your attention to a pamphlet I have in my hand, styled the "Annual Report for the Improvement of Chicago and Calumet Harbors, Illinois," etc., in the charge of W. L. Marshall, and state whether that is a government document, printed by the United States government at Washington, and whether it contains your report as engineer in charge of the Chicago harbor, made to the War Department, or to the Board of Engineers, in 1891?

A. Yes, sir; this is a printed copy of my report of 1891.

Q. Are you familiar with the dock lines that were established by the Board of Engineers, with the approval of the

Secretary of War, in what is called the outer harbor of Chicago in 1871?

A. Only from the records of the map that are quoted in this report.

Q. You are familiar with it from that?

A. Yes, sir; from the official records of the office.

Q. You know the dock line as then established, which extends from the Chicago river south?

A. Yes, sir.

Q. Do you know how far that line as then established did extend south?

A. Extended to opposite the south line of Van street or the north line. Opposite Van Buren street in 1881.

Q. Can you easily refer to that portion of your own report in which you mention the extension of the dock line?

A. Referred to from page 2,661 to 2,665.

Q. I find appended to this report on page 2,661 and the following pages what purports to be a report showing the establishment of harbor lines, Chicago Harbor, Illinois; will you state whether you were a member of the board of engineers that was constituted for the purpose of considering whether that harbor line should be extended?

A. Yes, I was.

Mr. Hamline: Seems to me that the record of who were appointed and what they were appointed for is the best evidence of who was appointed and what they were appointed for.

Mr. Ayer: We will put that in evidence, we don't want any question about it.

Q. Will you state whether that harbor line was then extended as far south as the southern limits of the outer harbor?

Mr. Hamline: Object to that. Whatever they did is official and their report is the best evidence of what they did.

The Master: Seems to me competent for him to state, as a matter of fact, whether the extension was made.

Q. I want to know whether there was a harbor line then established from Van Buren street south.

Mr. Hamline: Objected to as incompetent.

The Master: I think he may answer that.

Mr. Hamline: Objected to on the ground that it is incompetent, as the records of the department are the best evidence of what the department did.

Q. Then, will you please state whether the harbor line

Evidence before
Master.

which had been previously established in 1871 between the corner of Van Buren street extended and Randolph street was extended as far south as the southern limits of the harbor?

A. Yes, sir, by that board.

Q. And has that line ever been abolished?

Mr. Hamline: Same objection.

Mr. Ayer: I offer in evidence this report of Captain Marshall, and especially that portion of the report contained on pages 2,661 to 2,666 as defendant's Exhibit 8.

Mr. Hamline: I object to the whole thing as incompetent, immaterial and irrelevant.

Q. Do you know the location of the piers and slips constructed in the outer harbor by the Illinois Central Railroad Company, between the river and the north line of Randolph street extended, also the pier between Twelfth and Thirteenth streets, and the slip at the foot of Sixteenth street?

A. Yes, sir.

Q. Will you state whether any of those piers extend beyond the harbor line established by the board of engineers with the approval of the Secretary of War?

A. No, sir. None of them extend beyond.

Q. Assuming that the space in the waters of Lake Michigan, partially enclosed by the government breakwater on the south side of the outlet of the Chicago river, familiarly known as the outer harbor, will or may be used as a part of the harbor of Chicago for commercial purposes, what depth of water, in your opinion, should this space thus enclosed have in order to accommodate the vessels engaged in the navigation of the great lakes?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant. The question is not what the water inside the breakwater should be in this case under any of the issues in this case. My position is that when those breakwaters were severally built, they were then and they are, encroachments in the navigable waters of Lake Michigan; that is above and beyond our position that they could not build any docks anywhere in the waters of Lake Michigan without the consent of the State, and that the question is whether or not, at the time they were built, they were encroachments in the navigable waters of Lake Michigan. The first dock to the north was built in 1872 and 1873, the next dock in 1880, I believe, the third dock in 1880, the dock at Thirteenth street in 1885, docks below there built from 1885 to about 1890.

and this suit was started in 1882, about ten years ago, I believe, and, as I say, all these docks south of Park Row were built after this suit was started, and if we are entitled to an injunction at all in this case and an order ousting them from these docks, we are entitled to that order as of the date of the bringing of this suit, and all evidence with relation to everything since that time is immaterial and irrelevant. That is the reason we object.

3-22-204 Mr. Ayer: I will take the ruling of the Commissioner.

The Master: I think the question may be answered subject to the objection. The Court is to consider this testimony and not the Master, and what view the Court will take of it the Master is unable, in advance, to say.

A. To accommodate the general commerce of the lake as the harbors and channels are now projected or completed, I should say that it should be dredged to 20 feet in depth: the outer harbor.

Q. Having reference to the manner in which commerce in vessels is now conducted on the lakes at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of that commerce?

Mr. Hamline: The same objection on the same ground.

The Master: Same ruling.

A. At present no vessels with a deeper draft than about 16 feet can carry on commerce in the Chicago river, so that I should think that a foot deeper than that, 17 feet, would be a proper depth to accommodate the largest as well as the smallest vessels that come to Chicago now.

Q. If you were to construct a pier or wharf in the said outer harbor for the accommodation of vessels engaged in lake commerce, or were to advise in relation thereto, what would be the depth of water you would consider it necessary to reach in order that such pier or wharf should be available for the uses intended?

Mr. Hamline: Same objection, same grounds.

The Master: Same ruling.

A. Seventeen feet at present, and ultimately they should construct their docks with 20 feet of water. Piling and bulkheads so as to stand dredging to 20 feet.

Q. Assuming that the outer harbor of Chicago is to be used either for commercial purposes or as a harbor of refuge only what effect does the 13th street pier, constructed by

Evidence before
Master.

the Illinois Central Railroad Company, have upon that harbor?

Mr. Hamline: Same objections, same reasons.

The Master: Same ruling.

A. As far as the uses of the outer harbor as a harbor, as a roadstead, that pier increases its value; it protects it.

Q. In what way?

A. Shelters it from the waves rolling down from a south-east wind; protects the southern entrance to the harbor against the high waves and winds.

Q. Will you state whether, if that pier weren't there, it would be desirable, in your judgment, to construct a pier to take its place?

Mr. Hamline: Same objection, as incompetent and irrelevant, for the same reasons.

The Master: Same ruling.

A. I think it more than likely there would be a demand for a pier in approximately the same location as that pier. Probably wouldn't be built as substantially or as large or as wide, or occupy as much ground.

Q. Does that pier extend beyond the harbor line established by the Board of Engineers and approved by the Secretary of War?

A. No, sir, it doesn't extend out to the harbor line, quite; I think, somewhere between 15 and 30 feet between the outer end of that pier and the dock line. I don't know exactly, but it is not quite out to the dock line.

Q. Will you state whether there has been any attempt on the part, either of the State of Illinois or the city of Chicago to improve the space within the government breakwater south of the Chicago river for use as a commercial harbor?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

The Master: He may answer.

A. Has been no attempt at all except the one pier that was constructed temporarily by the authorities of the World's Columbian Exposition and which has since been removed.

Q. Where was that pier?

A. At Van Buren street.

Q. Do you remember how far that pier extended into the harbor?

A. My recollection is about 800 feet, I think. It didn't go out within 200 or 250 feet of the dock line.

3-22-205 Q. For what purpose was that pier constructed?

Evidence
Master.

A. It was built for the purpose of transportation facilities for passengers to the World's Fair.

Q. Furnish docks for steam-boats?

A. Yes, sir; passenger service entirely, not for general commercial purposes.

Q. Will you state whether the Government of the United States has suspended work inside of the outer harbor, if so, for what reason and how long has such work been suspended?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

The Master: He may answer.

A. There has not been any formal suspension of work by any order from the Secretary of War, but the officer in charge of the district has failed to carry on any improvements in that harbor beyond the preservation of the piers since 1888 within my knowledge, I don't know how long before that it was stopped, but there has been no work done in the harbor since I have been in charge of this district.

Q. State the reason.

Mr. Hamline: Same objection.

A. Simply because the matter has been in litigation, and there has been no effort made by anybody to take advantages of the harbor constructed at great expense by the government, and I considered it a waste of money and so advised the Secretary of War not to spend any money on it.

Q. Will you state what depth of water there should be between the bottom of vessels entering the harbor and the bed of the navigable water to guard against the dangers to vessels by chance obstructions?

Mr. Hamline: Objected to as incompetent and immaterial.

The Master: He may answer.

A. Large vessels, similar to those that enter Chicago river it is the opinion of myself and other engineers, they should have at least two feet. For small vessels in still channels there should be at least one.

Q. How deep should the navigable water be to make 18 feet available for purposes of navigation?

Mr. Hamline: Objected to as incompetent, irrelevant and immaterial.

A. Should be two feet deeper, 20 feet, to guard against ordinary and temporary fluctuations and chance obstructions.

idence before
water.

Q. In order to make 16 feet available for the purpose of navigation, how deep should the water be?

A. Two feet deeper, 18. Vessels, however, practically load down to the full draft of any channel.

Q. Will you state how many harbors on the lakes have 16 feet or more depth of channel?

A. I am not familiar enough to state how many. There are very few. I think there are only two on Lake Michigan. Two artificial harbors, Milwaukee and South Chicago.

Q. Do you know how many on all the lakes?

A. No, sir; I do not. Very few of them, probably not over half a dozen on all the lakes among the artificial harbors that will carry vessels drawing 18 feet of water.

Q. How is it as to natural harbors?

A. Natural harbors, some of them are deeper, I don't know how much deeper. Escanaba and Ashland and harbors like that are somewhat deeper now up to the docks. None of them any deeper than that up to the docks.

Q. Do you know whether the process of deepening the harbors is now going on?

A. Yes, sir; the harbors of Duluth and Buffalo are being deepened to 20 feet, and the channels between the lakes are being deepened, but they are not yet—you can't carry over 18 feet in any of them now.

Q. Will you state what are the chief obstructions to the movement of the largest size vessels in the Chicago river?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

A. The tunnels are the first, and the bends in the river come next, and the bridges the third.

Q. Will you state whether or not tugs are required in the movement of the large sized vessels, and how many tugs, and what is the cost of moving the vessels by tugs—comparative cost?

A. I don't know exactly, except from hearsay; I mean the whole field covered by your question. Tugs are required in the movement of all large vessels in the Chicago 3-22-206 river, from one to three tugs to each boat. The

cost I think is about one-half—from the mouth of the river up to the elevators, up above Twenty-second street, to load and get out costs them about one-half what it does to go to Buffalo. Takes fully a day to get up there. They hardly ever get in and out in less than a day and a half or two days when the river is as full as usual of vessels. Takes

them about half as long to get out and load as it does to go—

Q. I now call your attention to the map—printed map, styled "Outline map of the lake front, Chicago, Illinois, from Chicago harbor to Indiana state line." Will you state whether that was made in your office, under your supervision or direction?

A. Yes, sir; that map was made under my direction.

Q. Does it show accurately the contour of the shore?

A. Yes, sir.

Q. And the depth of water?

A. It doesn't show the depth of water; it shows limit of certain depth, beyond which they have more than a certain depth.

Q. Does it show construction of the piers extending out into the lake at different points?

A. Yes, sir; shows every pier at the lake front at that time.

Q. Can you state how far into the lake from the line of the shore the landing pier at the Columbian Exposition grounds and the Steel Company's pier down at South Chicago extend?

A. I can't tell probably within a hundred feet. The World's Columbian pier, the large one at the Casino, extended, I think, 2,400 feet into the lake, approximately. It may vary 150 feet from that. The Illinois Steel Company pier, when it was built, extended 2,100 feet, but that has still filled out, the sand has banked up against it, so I don't suppose now it extends over 1,500 feet into the lake at the extreme end.

Q. That intended as a permanent pier?

A. Yes, sir; that is a harbor—commercial harbor.

Q. What was this pier that was built at the Columbian Exposition grounds built for?

A. That pier was built for passenger service at the World's Fair. Open pile pier. The Illinois Steel Company pier is a solid pier. It is a substantial pier. The World's Columbian pier was a pile structure, temporary.

Mr. Ayer: I offer this outline map in evidence, to be marked "Defendant's exhibit number 9."

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

Q. Will you state when this map was made?

A. Made in the spring of 1893. Surveys were made in the summer of 1892.

vidence before
Master.

Q. Will you look at the blue print now shown you, marked "Chicago harbor from the survey of 1892," and will you state whether this blue print is a copy of tracing made in your office, under your direction?

A. Yes, sir; that was printed from the tracing in my office.

Q. When was it made?

A. This was made in the spring of 1893, from a survey made in 1892.

Q. What was the object of it?

A. This is a part of a map that extended from Diversey avenue down to the Illinois state line; made for the purpose of finding out the obstructions along the Chicago harbor front, for the purposes of the World's Fair; made at the request of the transportation department of the World's Fair.

Q. What were these figures that were placed upon the map intended to express?

A. The depth of water referred to, Chicago city datum.

Mr. Ayer: I offer that in evidence as defendant's Exhibit 10.

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant.

Cross-examination by Mr. Hamline.

Q. This map showing the lake front and Chicago harbor to Indiana State line, 1893, shows all the piers that are constructed into the waters of Lake Michigan south of the Chicago river, does it not?

A. Supposed to show them all, yes, sir. May not show them in complete detail, they are indicated there; that is simply a skeleton map.

Q. Are there any piers that are used for commercial purposes along this lake front?

A. The Illinois Steel Company harbor.

3-22-207 Q. The pier at the Calumet harbor?

A. Calumet and Chicago harbors, that is all.

Q. A number of these marked on here as sticking out into the lake are, in fact, mere breakwaters, are they not, that catch the sand and protect the shore?

A. They are to make land, that is all, silt catchers. I think there is one pier at Sixteenth street for the Illinois Central Railroad.

Q. Then, in reality, the only piers aside from these break-

waters put out to catch sand, are the pier at Calumet harbor, the Illinois Steel Company pier, the Illinois Central pier at Sixteenth street, Illinois Central pier at Thirteenth street, Columbian Exposition pier, since removed, and the three piers north of Randolph street?

A. Yes, sir, those are there used for commercial purposes.

Q. I see that most of this map here is taken up with delineating a 12-foot channel, 200 feet wide; opposite Fifty-first street; 12-foot channel, 500 feet wide, opposite Seventy-ninth street, 12-foot channel, 400 feet wide, opposite Eighty-second street. What was the object in delineating the 12-foot channel?

A. That map was made entirely as a guide for vessels going to the World's Fair in 1893, and we showed the channels which were suitable for the small passenger craft, as well as the larger courses for large vessels on the outside. A great many obstructions out there, rocks and so on, and I made that skeleton map with the sailing directions so as to allow strange vessels to reach the fair grounds without running into any of those rocks.

Q. Do you know the average depth of draft of the vessels that came into Chicago harbor in 1869?

A. No, sir.

Q. The average depth of draft of boats coming into Chicago harbor in 1872 and 3?

A. No, sir, I don't know it even to-day.

Q. You don't know the average draft of any boats coming in any year between 1869 and 1895?

A. No, sir.

Q. Supposing I should tell you that the average draft of the vessels coming into Chicago harbor in 1869 was about 6 feet, and the average draft of vessels coming into the Chicago harbor in 1895 was about 9 feet, the average, what effect would that have upon your judgment as to how deep to make a harbor?

A. Wouldn't have any at all, because I would have to make any harbor, any channel, to accommodate the general commerce of the lakes, which would include the cats as well as the kittens.

Q. You would have to make a harbor deep enough to accommodate the biggest boat?

A. The biggest boats that trade at that port or would be likely to trade at that port.

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Q. Now, then, do you know how many harbors there are on the Atlantic coast where there is 18 feet of water at the shore or dock line?

A. No, sir, I do not.

Q. Do you know if there are any?

A. I do not know anything about it.

Q. Do you know of any harbors anywhere outside of the great lakes and in the United States where the depth of water is 18 feet at the dock or shore line?

A. I know that in several of the harbors the water is deep enough at the shore line for a vessel drawing 18 feet to lie. I don't know anywhere at the foot of the pier that there is 18 feet of water.

Q. Are you sufficiently familiar with the subject to state what the average depth of water is in the average harbor on Lake Michigan at the dock line?

A. No, sir; I am not.

Q. And you cannot state as to the average depth of water at the dock line in the average harbor on Lake Michigan for any year prior to——?

A. No, sir; not only for any harbor—I can't state the average depth for any harbor in Lake Michigan or any harbor on the face of the earth at the dock line.

Q. I am asking for the average depth of the water at the dock line?

A. No, sir; not for any harbor on the face of the globe.

Q. What do you call the Calumet harbor?

A. Call all that part of Calumet river which is beyond the first bridge; outside of the first bridge.

Q. Which is lakeward from the first bridge?

A. Lakeward from the first bridge, yes, sir.

3-22-208 Q. That first bridge is delineated on this map as 93——?

A. 92d street, I think, or 95th.

Q. It is delineated on this map as 93, right here opposite elevator chimney, isn't it?

A. Yes, sir.

Q. About how far from the mouth of the river is that bridge up the river?

A. About half a mile.

Q. That is what you call Calumet harbor?

A. Yes, sir.

Q. Doesn't navigation,—boats engaged in interstate commerce go way up beyond that?

A. Two government improvements there, one is the improvement by dredging the Calumet river and the other the improvement of the harbor and we subdivide it at that bridge.

Q. How long have you been at work on that harbor down there?

A. Have been at work since 1888. The harbor has been in progress since 1870 or 1871.

Q. And that which is called the Calumet river farther in shore than that portion of the Calumet river called Calumet harbor, is also a harbor, is it not; used for interstate commerce?

A. Yes, sir; it is the interior harbor, it is the main harbor.

Q. And how far up does that extend, how far is the government improving it?

A. They are improving it, intend to improve it as far as Hammond. The improvement is extended about three and a half or four miles.

Q. Three and a half to four miles above this bridge?

A. About three miles and a half above that bridge.

Q. About four miles from Lake Michigan?

A. Yes, sir.

Q. In 1888 do you know the depth of the water on the east side of that bridge?

A. The water varied in depth and varied on various days. It is not the same any two days.

Q. What was the average depth?

A. Accommodate vessels about 15 feet up to that bridge.

Q. And west from that bridge, farther inland, what was the average depth of the channel?

A. I don't know sir.

Q. Three and a half miles up?

A. The vessels drawing ten feet got up about four miles, ten to twelve feet. The depth varies so much during different seasons of the years. Whenever there is a rise in the Calumet river.

Q. As a matter of fact, no boats drawing ten feet of water were wont to go up three and a half to four miles from Lake Michigan into that river?

A. Occasionally they went all the way up to Hammond. Sometimes they failed to get up more than four or five miles.

Q. Hammond is about how far up?

A. I think about 12 or 14 miles.

Q. You are engaged in making channels down there now,

vidence before aren't you?
Master.

A. Yes, sir.

Q. And according to this report of yours made June 30, 1891, how deep a channel were you seeking to make in Calumet harbor?

A. 16 feet.

Q. That had not been accomplished at the time, had it?

A. It had been accomplished but it had deteriorated, we had frequent dredging, to maintain it every year or two have to dredge.

Q. West of that bridge to the Calumet river how deep a channel were you seeking to secure there?

A. Same depth.

Q. I thought from what Major Liljencrantz said that some portion of that Calumet river where you had a channel seven feet?

A. That is above where we have reached. It is above the point where we have reached with improvement. There is some part of that Calumet river near Hammond that I don't suppose is three feet and a half, been filled up with refuse of Hammond slaughter-houses.

Q. You were seeking to make a channel seven feet?

A. No, sir, not seeking to make seven feet, sixteen feet all the way to Hammond, but a little dredging done on the outer river there for the purpose of trying to maintain a ten foot channel and we failed and then that work has been suspended by order of the Secretary of War until the G. H. Hammond Company stopped putting filth in the river.

3-22-209 Q. This pier at the Calumet river is built out by the United States Government, is it not?

A. Yes, sir.

Q. And the only private piers used for commercial purposes, or for navigation in the sense of commerce are the Illinois Steel Company pier and the piers of the Illinois Central?

A. Yes, sir.

Q. On the waters of Lake Michigan south of the Chicago river?

A. All that I am aware of.

Q. In the State of Illinois?

A. Yes, sir.

Q. You don't know what license or authority the Illinois

Steel Company got to put out their pier there down near the Calumet river?

A. No, sir, I don't know anything about it. The War Department officers do not interfere with those works unless they encroach upon navigation as a matter of fact. What authority they have to go out to dock lines, or anything of that kind we are not concerned in.

Q. You have no dock line down there at Calumet harbor, have you?

A. No, sir.

Q. You say no advantages have been taken of the Chicago harbor lying outside of the Chicago river and south thereof, by anybody?

A. Other than for pleasure purposes; an occasional craft goes in there.

Q. Don't you recollect that during all these years the title to the submerged lands on which docks and advantages would have to be taken were in litigation?

A. Yes, sir, that is the reason I gave for suspending work until that matter was decided and could be seen that property could be used.

Q. If the United States Supreme Court had decided the Illinois Central were the owners for miles out into the lake of the land between Randolph street and Park row, anybody building a breakwater on there would—building pier on there or otherwise taking advantage of the land would be likely to lose his money, wouldn't he?

A. I don't know anything about it. I know if that was sustained by the United States Supreme Court the Government wouldn't have any farther interest in that harbor. That would take all the piers and everything else and we wouldn't be concerned in it.

Q. As a matter of fact if that claim had been sustained your outside breakwater there would be standing on property of the Illinois Central railroad?

A. Be the property of the Illinois Central now, I believe, the property of the State of Illinois.

Q. How wide is that outside breakwater?

A. 30 feet.

Q. And doesn't that breakwater subserve every purpose of a breakwater?

A. Certainly.

Q. Don't need to make it any wider?

A. No, sir.

vidence before
Master.

Q. Wouldn't a breakwater at the south end of the enclosed basin and situated at 13th street, protect that basin from the waves from the south, if made 30 feet wide equally as well as the breakwater that protects the shore from the east gale?

A. Just as well if it was made 16 feet wide.

Q. How wide is that breakwater at 13th street, 300 feet, isn't it?

A. I don't remember, 300 or 600.

Q. Then in building that pier down there at 13th street of the dimensions constructed, the Illinois Central were not subserving the functions of protection of the harbor as that width is more than sufficient to make a good fair breakwater, were they?

A. Don't think it ever entered the minds of any officials of the Illinois Central road at all to build a pier for the purpose of public benefit; they were building a pier for their own uses. As a matter of fact, the pier subserves the same purposes as a government breakwater would serve if built there. It is built about on the line where we would have put a breakwater.

Q. For the purpose of joining that line back as far as opposite the exterior—your exterior breakwater?

A. Yes, sir; makes a symmetrical harbor of it.

Q. Were you ever engaged in commerce by boats in conjunction with piers, your own private business?

A. Have been engaged in the management of boats in the government service for engineer purposes but not for general commercial purposes at all.

3-22-210 Q. Supposing you had a pier built out as far as a dock line, if you wanted to get deeper water you would have to dredge around your pier, wouldn't you?

A. Certainly, that is the usual way.

Q. And dredging around piers is the familiar method of making deep water, is it not?

A. It is the usual way; yes, sir.

Q. In fact, anybody who ever wants to go east of that dock line to get deeper water has got to dredge around his pier instead of building farther east?

A. They can't go east of that dock line. They can't go any farther out than that dock line.

Q. If they want deeper water inside that line they have got to dredge for it?

A. Yes, sir.

Q. Now, was there any engineering difficulty in the road of the Illinois Central railroad dredging the submerged land immediately around their docks as they stood in 1869, to wit, just east of Elevator B, in order to come in connection with the deep water in the Chicago river?

A. I don't remember the exact status in 1869. Of course, they could get water by dredging from the lake anywhere in the limits of the city of Chicago.

Q. You recollect Chicago river—channel of the Chicago river?

A. Yes, sir.

Q. Lies north of these docks?

A. Yes, sir.

Q. Wouldn't it not have been a very simple matter to have dredged if they wanted deep water, to have dredged right to the Chicago river?

A. Well, not before the construction of the piers, beyond there because that would have filled up probably, as fast as they dredged.

Q. After 1870 when that exterior breakwater was built, then they could have dredged directly north of the Chicago river without any trouble?

A. Oh, yes. These harbors are built for commercial purposes and then these docks, as I understand, were built for the purpose of connecting the railroad and marine commerce.

Q. That your understanding of the construction of the 13th street dock?

A. No, not of that dock, but some of these docks at the outer end of the harbor at elevators A and B.

Q. Don't you know, as a matter of fact, they used to rent out most of them?

A. Don't know. It is immaterial whether they were rented or for any other purpose. They were built there for the transfer of freight, for lake transportation.

Q. What do you know of the intention of the Illinois Central?

A. I don't know anything about the intention, I say it is adapted to that purpose.

Q. Easily adapted for the purpose of putting railroad tracks on?

A. Adapted, yes, sir, for railroad tracks or any other way of carrying freight out of that dock. This is the usual way of transferring freight, by cars and tracks.

vidence before
Master.

Re-direct examination.

Q. Can you state by whom, what is known as the south pier at the outlet of the Chicago river, was constructed?

A. I haven't the record of those piers now, I have in my office just who built every part of it.

Q. What I want to get at is whether they are constructed by the government.

A. I think a small part of that pier was constructed by the Illinois Central railroad and certain parts of another pier were constructed by the city of Chicago and the rest by the United States government, but what piers and what proportions, I don't remember.

Q. Remember by whom the east extension of the pier was constructed?

A. No, sir, I do not.

Q. (Mr. Hamline). The pier at Calumet, constructed by the Illinois Steel Company has been built since the year 1883, has it not?

A. Built in 1889 or 1890, I don't remember which.

3-22-211

May 18th, 1895.

CHARLES E. GRAFTON, a witness call.d on behalf of the defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Ayer.

Q. Please state your name, age, residence and occupation.

A. Charles E. Grafton; residence, Chicago; occupation, civil engineer.

Q. What experience have you had as civil engineer?

A. I have been following that profession for 15 or 16 years.

Q. Did you hear the testimony of Mr. Tarbet, given here this morning?

A. Yes, sir.

Q. Will you state whether or not you assisted Mr. Tarbet in making the soundings about the Illinois Central Railroad Company's piers between Randolph street and the river,

and the Thirteenth street pier, so called, and the Weldon slip? Evidence
Master

A. Yes, sir, I assisted.

Q. I will call your attention to the two tracings which were produced by Mr. Tarbet, marked, "Defendant's Exhibits 6 and 7," and will ask you to state whether those tracings exhibit accurately the depth of the water about those piers and slips in feet and tenths of a foot, and, if so, whether they are referred to any particular plane of water?

A. Yes, sir, these are the tracings that Mr. Tarbet made; they show the depth of water below city datum as found by our soundings taken between the 12th of March and, I think, it was the 1st of May, 1895.

Q. What assistance did you render in taking those soundings?

A. Well, I was present, and part of the time I took a few of the soundings, and managed the boat a little.

Q. Have you had experience in taking such measurements before?

A. I have taken other soundings, yes.

Q. Will you state whether these soundings were accurately and carefully taken?

A. Yes, they were carefully taken.

Q. By whom were they reduced to Chicago city datum?

A. By Mr. Tarbet and myself, generally both checked them over together afterwards.

Cross-examination waived.

Mr. Ayer: I would like to have it understood that all the evidence and proofs in the old record are also in this case, and that each side is at liberty to refer to any portions of the printed record.

Mr. Hamline: I object for the reason that a great deal of it is incompetent, immaterial and irrelevant, and I can't tell what of it I want to offer, if it is necessary to offer it again, until I know what he offers. In other words, I can't rebut his case until I know what his case is.

Adjourned to Friday, May 24, 1895, at 10 o'clock a.m.

Evidence before
Master.

May 24, 1895.

Met pursuant to adjournment.
Present, as before.

REDMOND PRINDIVILLE, a witness called on behalf of
defendant, being first duly sworn, testified as follows:

Direct examination by Mr. Jewett.

Q. State your name, residence and occupation.

A. Redmond Prindiville, Chicago; occupation is loan
agent for the Northwestern Mutual Life Association.

Q. How long have you resided in Chicago?

A. It will be 59 years in August.

3-22-212 Q. Have you at any time during those years
been connected with the municipal government of
Chicago; if so, in what capacities and when?

A. Yes, as alderman, assessor, member of board of edu-
cation, commissioner of public works.

Q. During what years?

A. I think alderman was in 1860 or 1861; board of educa-
tion from 1861 to 1864 or 5; then commissioner of public
works from first of January, 1870, to October, 1876; I think
October or November, 1876, somewhere along there.

Q. How many tunnels under the Chicago river or its
branches have been built by the city of Chicago?

Q. Open tunnels, you mean, for traffic?

Q. Yes.

A. Two.

Q. Under what streets or——

A. First was at Washington street, the second at La-
Salle.

Q. What parts of the city do these tunnels connect?

A. The Washington street connects the south and west
side, and the LaSalle connects the north and south sides.

Q. On what parts of the river are they respectively?

A. One across the south branch, the other across the
main river.

Q. Which is across the main river?

A. LaSalle street tunnel.

Q. Were either of these tunnels built whilst you were a
member of the board of public works of the city of Chicago?

A. Yes, the LaSalle street tunnel.

Q. When was the tunnel completed, ready for use?

A. It was completed about the 1st of July or thereabouts, somewhere about that time, in 1871, if my recollection serves me right. Almost sure that was the—yes, I know it was.

Q. It was completed before the great fire of October, 1871?

A. Yes, completed about the 1st of July, 1871.

Q. When was the Washington street tunnel completed?

A. I couldn't say exactly, but I should think perhaps 2 or 3 years before that, maybe longer.

Q. What was the depth of water over the tunnels in the Chicago river and its branches—south branch, at the ordinary stages of the water when those tunnels were built?

A. The intention was, I think, when the Washington was built to have 14 feet, but that was found to be insufficient and troublesome, and the intention was that the LaSalle should have 16 feet at low water.

Q. What was the reason for leaving that depth of water over the tunnels?

Mr. Hamline: Object to his reason, if not appearing that his reason was that of the men that constructed the tunnel.

A. The reason was so that vessels were being increased in size very rapidly at that time and a larger draft of water, and to prevent them from getting aground on the crown of the structure.

Q. During your residence in the city of Chicago, have you been connected with the navigation of the lakes; if so, in what capacities, and when?

A. I was connected with the lakes as captain of vessels for six years, and as owner of vessels for 40 years or over.

Q. During what years were you in command of a vessel on the lakes?

A. From 1843 to 1849; I was captain at 17 and quit at 23.

Q. Has your business since then kept you generally informed as to the character, size, capacity and draft of vessels employed in the commerce of the lakes, and the changes that have taken place in these respects?

A. My business kept me posted, being connected as an owner of vessels up to some years since, and since then I have taken the usual interest that persons would in business they have always been connected with, in general observation.

Q. What changes, if any, have taken place in respect to the dimensions, capacity and draft of vessels engaged in the commerce of the lakes, which arrive at and clear from the port of Chicago, within your recollection?

dence before
after.

A. Well, about the average tonnage. My first recollection about the average tonnage of vessels on the lakes was about 100 tons.

Mr. Hamline: What year was that?

3-22-213 A. Well, 1835 and 1836, along there; there were a few, of course, that large, but a great many were very much smaller than that.

Q. You mean 1835 and 1836?

A. Yes, along about that time; I think the greater number—there were some vessels that were noted for being very large, couple hundred tons or thereabouts, but the majority of them, I think, would average under 100 tons at that time.

Q. What is the condition to-day?

Mr. Hamline: Objected to as immaterial and irrelevant.

A. Anywhere from 3 to 5 thousand tons, as it is now.

Mr. Hamline: You are speaking of the average?

A. No, the average I should say now was over 2,000 tons, that is taking the tonnage, I don't mean the number of vessels. I should think the average would be over 2,000 tons.

Q. Take the vessels engaged in the grain trade at Chicago, what is their capacity to-day, as compared with what it was 10 or 15 years ago?

Mr. Hamline: Objected to as immaterial.

A. Individual vessels, I should think, were fully doubled.

Q. What is the capacity of the large vessels engaged in the grain trade at Chicago?

A. Over 100,000 bushels of wheat.

Q. What tonnage would that mean?

A. It would be 3,000 tons or a little over. I think that would be it, net tons; thirty tons to the thousand bushels.

Q. What has constituted and still constitutes the harbor of Chicago, within your recollection?

Mr. Hamline: Objected to as immaterial and irrelevant.

A. For what purpose?

Q. Commercial purposes.

A. The Chicago river and its slips, etc.

Q. Approximately, what is the number of miles of wharfage on the two sides of the Chicago river and its branches, within the limits of the city of Chicago?

A. I couldn't tell the exact—I should say somewhere about thirty miles, that is my opinion.

Q. Have the tunnels across the Chicago river or its

branches at any time interfered with the passage of vessels up and down the river within your knowledge?

A. Yes, I have seen vessels ground on the Washington street tunnel.

Q. In what business were those vessels engaged?

A. In the carrying trade of the lakes; grain, coal, etc.

Q. What is the depth of water at ordinary stages in the channel along and over what is known as St. Clair Flats?

A. About 18 feet at present, I think, may be more than that. That is my understanding.

Q. Do you or not know that channel is now being deepened?

Mr. Hamline: Objected to as immaterial.

A. They have been deepening that channel ever since I can recollect.

Q. By what authority is the deepening done?

A. Government of the United States.

Q. And for what purpose?

Mr. Hamline: Object.

A. For the purpose of giving more water for large class of vessels cross what we call the flats.

Q. Are there any natural causes, to your knowledge, that operate to change the depth of the water in the Chicago river and along the shores of Lake Michigan in front of the city of Chicago from time to time during the season of navigation, if so, what are those causes and what are the changes produced by them?

A. Change is frequently produced by the change of wind. Wind from the southwest blowing fresh lowers the water sometimes, more or less, sometimes 1 or 2 feet, not very often 2 feet, however; and then a north wind blowing fresh often raises the water from one—I have seen it raise it 3 feet.

Q. Are there any periodical changes in the height of the water at and in the vicinity of the city of Chicago which takes some years to accomplish?

A. Yes.

Q. What is the extent of those changes? What is the period of time which is required to accomplish them?

A. Those changes sometimes reach 3 feet. I think the water in 1887 was some three feet lower than it was at a later period. There is a tradition among men who observe those things and the lake men

evidence before
Master.

that those changes come about once every seven years or thereabouts.

Q. Do you know whether or not the water has been lower in the Chicago river and along in the vicinity of Chicago since than it was in 1847?

A. Well, it was reported as below datum, what we call datum, some two or three years ago, I think, I forget the exact time, but was so reported.

Q. What is the depth of the water in the channel of the Chicago river east of La Salle street tunnel at ordinary stages?

A. About 18 feet.

Q. Having reference to the manner in which commerce in vessels is carried on in the lakes, and especially at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for accommodation of vessels engaged in that commerce?

Mr. Hamline: Objected to on the ground of being irrelevant, incompetent and immaterial.

Q. For the accommodating of the vessels engaged in commerce I should say that it would require, it ought to, from 15 to 16 feet of water, I should think. To make it entirely desirable I should say 16 feet.

Q. Do you know what depth of water is required to float the largest class of vessels that are engaged in the lake commerce, when they are fully loaded?

A. I don't think—I don't know, I couldn't say whether they could be fully loaded, it would require, I think, fully that amount of water to accommodate the largest class if they are fully loaded, 16 feet.

Q. When a vessel is fully loaded at a dock or slip, what depth of water should there be, if any, between the bottom of the vessel and the bottom of the slip in order that it be safe?

A. Well, as she is lying there in the river when there is no agitation of the water, no sea or anything of that kind, two or three inches under the keel would be sufficient. But where there is any little sea of course she would require more.

Q. Do you not know, Mr. Prindiville, that they are building vessels for use in the commerce of the lakes that require a depth of water of 18 feet and upward to float them when loaded?

Mr. Hamline: Objected to as immaterial and irrelevant.

A. I have heard that they are building vessels of 5,000 tons and a vessel of that size ought to have that amount of water provided as you say that she is fully loaded; that would be rather a light draft for a vessel of that size if she was fully loaded.

Q. Have you a general knowledge of the wharves and slips constructed by the Illinois Central Railroad Company between Randolph street extended east and the Chicago river; also the pier between 12th and 13th streets, generally called the 13th street pier south of Park Row, and also the wharves and slips in the open waters of the lake reaching down nearly to the north line of 16th street?

A. Yes, I have general knowledge.

Q. Do you know the depth of water at the eastern ends and sides of these piers?

A. I do not know.

Q. Assuming that the depth of the water at the outer ends and sides of those structures does not exceed 14 feet in ordinary stages of water, do they or not, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is transacted in vessels?

Mr. Hamline: Objected to as incompetent, immaterial and irrelevant so far as relates to the commerce on the lakes subsequent to the time this suit was brought.

A. I would think not.

Q. If you, as the owner of land on Lake Michigan, in the city of Chicago, or its vicinity, were to construct a pier or wharf into the lake for the accommodation of lake commerce generally, having in mind the manner in which that commerce is now conducted in vessels, what depth of water would you consider it necessary to reach in order that your pier or wharf should be available for the purpose intended?

Mr. Hamline: Same objection.

3-22-215 A. Not less than 18 feet.

Q. Assuming that the space in the waters of Lake Michigan partially enclosed by the government break-water on the south of the outlet of the Chicago river will or may be used for a part of the Chicago harbor for commercial purposes, what depth of water, in your opinion as a practical man connected with the commerce of the lake at Chicago, should the space thus partially enclosed have in order to accommodate the important commercial interests of the city connected with the navigation of the lakes?

Evidence before
Master.

Mr. Hamline: Same objection.

A. Not less than 18 feet.

Q. Are you familiar with what are called the north and south piers of the Chicago river?

A. Yes.

Q. By whom were they built?

A. The United States Government.

Q. Does your recollection go back to the time when vessels in order to reach the Chicago river were obliged to go around a sand bar to the south as far down approximately as Van Buren street, perhaps, and turning round the end of the sand bar come north into the Chicago river?

A. Yes.

Q. Is it then a fact that the government breakwater was built on that sand bar?

A. That I couldn't say.

Q. Isn't that your understanding?

Mr. Hamline: I object to his understanding.

A. I always supposed so, but I couldn't say that.

Q. Was there any difficulty in the navigation of this channel; if so, what?

A. Great difficulty in coming into port in northers, as we called them, north winds, and the difficulty would be in proportion to the severity of the gale. No small vessel could come in without artificial help or power, until the gale was over.

Q. In the opening of the direct channel of the Chicago river into Lake Michigan was not the structure known as the south pier extended across the channel previously used by the navigators for the return of their vessels into the Chicago river around the sand bar?

Mr. Hamline: Object to that as it not appearing where at, what time and how far the pier was projected, and it not appearing from this witness' testimony as to where the channel was; question and answer being conclusions.

A. Yes.

Q. By whom was that south pier extended?

A. By the United States Government.

Mr. Hamline: Objected to as not being competent, and move to strike it out.

Q. Does not the south pier of the Chicago river, as thus extended, run across and effectually obstruct the channel referred to?

A. The old channel, the channel of the old river?

Q. The channel around the old sand bar into the river.

A. The former and navigable channel is what we called the old river, but this channel and that you speak of after the south pier was built, that is the channel.

Q. Doesn't the south pier, as constructed, cross that channel and completely obstruct it?

A. Yes, that is my recollection of it.

Q. Does not the south pier of the Chicago river extend beyond the outer ends of the piers of the Illinois Central Railroad Company north of Randolph street?

A. Yes.

Q. How far beyond, if you know?

A. Well, I couldn't say where they are now, whether they have been extended of late or not. They did extend some distance. I never noticed exactly.

Mr. Hamline: Objected to on the ground that the distance already appears from surveys.

Q. Has the State of Illinois or the city of Chicago ever built, or to your knowledge proposed to build any pier, dock or wharf connected with the frontage of the city on Lake Michigan for commercial purposes between Randolph street and Park Row or 12th street?

3-32-216 Mr. Hamline: I object to this witness stating what the city of Chicago proposed to do as he does not, up to date, constitute the legislative department of the city of Chicago.

Q. Has it ever done it, and does it propose to, to your knowledge?

A. Never to my knowledge.

Q. To what uses is the ground east of Michigan avenue and between Michigan avenue and the Illinois Central right-of-way and between Randolph street and Park Row put?

A. Public park.

Q. Are not prominent buildings erected on some portions of it?

A. One. There are some others that I don't consider prominent.

Mr. Ayer: What is that prominent building that you refer to?

A. The Art Institute.

Q. Where is that situated?

A. It is between Adams and Jackson streets, I think; in fact, it is not between Adams, it runs north of Adams, it is right at the end of Adams street.

Evidence before
Master.

Q. Can you give the dimensions of that building approximately?

A. I couldn't.

Q. About how long is it?

A. That would be really only guess work. I should think it is 150 feet, perhaps.

Q. Isn't it more than that?

A. It may be, I couldn't say, I never thought of it.

Q. Which way does the building front?

A. West; it also has an east front, but what we would call the front of it is west, it also fronts south and north.

Q. What are the other buildings which you just now referred to?

A. Building that is called Battery D and I forget now what they do call the other one.

Mr. Jewett: Armory, isn't it?

A. Yes.

Mr. Ayer: Where are those buildings situated?

A. To the north of the Art Institute, I think, about between Madison and Adams. One of them was used for a while, I think, for the Baltimore and Ohio Passenger station.

Q. State whether or not the breakwater was constructed by the United States Government to the north and east of the north pier of the Chicago river?

A. Yes.

Q. What direction does that breakwater lie?

A. It runs southeast and northwest direction.

Q. Do you know the extent of it in length?

A. No, I do not, except guess work.

Q. What purpose does that subserve in the navigation of the lakes?

A. Serves as a shelter for vessels, wind blowing heavy from the north and northeast, they can make shelter by coming to an anchor and lying there safely without being obliged to come inside the harbor.

Q. Do you know what depth of water there is on the south side of that breakwater?

A. No, I do not.

Q. If a vessel coming in from the north should be able to round the east end of the north pier, what course would it naturally take and might it naturally take in order to reach a place of safety?

A. West.

Q. Up the river?

A. Yes.

Q. Under such circumstances would it have any use for the outer harbor, as it is called?

A. Wouldn't be necessary, if it merely came in for shelter it could use either of the two, provided there is water enough.

Cross-Examination by Mr. Hamline.

Q. Mr. Prindiville, how long since you have been actually engaged in sailing vessels engaged in commerce?

A. Sailing vessels, you mean as a member of the crew, or officer or owner of vessels?

Q. Captain.

A. I was captain first, well, sir, it was '49 to '95, deduct 49 from 95, that would leave the number of years. Since 1849; I quit sailing in 1849.

Q. About 46 years ago?

A. Yes.

Q. About how long since you quit being a vessel owner?

A. About four years.

3-22-217 Q. Have you taken sufficient interest in the lake frontage of the city of Chicago to tell us whether or not there is an iron fence that stretches along the lake front west line of the right-of-way of the Illinois Central Railroad, from Randolph street down to Park Row?

Mr. Jewett: Objected to as immaterial.

A. There is an iron fence there, I don't know whether it reaches Randolph street or not, I have taken no notice of it south of Van Buren.

Q. Well, south of Van Buren street it is continuous down to Park Row?

A. It is.

Q. And nobody can get over that fence, can they, without tearing it down?

Mr. Jewett: Objected to.

A. That I could not say, I never tried it.

Q. It forms a barrier, does it not, to get into the waters of Lake Michigan?

A. I should think it would, yes.

Q. That has been built by the Illinois Central Railroad, has it not?

A. That I don't know.

Q. It is on their right-of-way, isn't it?

A. I think it is.

idence before
master.

Q. Don't you think that continues up to Randolph street?

A. I am not sure that it does. I couldn't say that it does. I can only recollect it as far as Van Buren street.

Q. You are aware of the litigation that has been going on for the last thirteen years between the city of Chicago, the State of Illinois, and the Illinois Central Railroad, haven't you?

A. Yes.

Q. That involved the lands submerged under the waters of Lake Michigan in front of this tract, did it not?

A. That is my understanding.

Q. Was it not on that account that no steps were taken to build docks out into the waters of Lake Michigan by anybody?

A. Not to my knowledge; I couldn't say that was the case.

Q. You, as a citizen of Chicago, interested in its commerce, familiar with its affairs, have known that that law suit has clouded the title to, and prevented the improvement of the submerged lands in front of the city?

A. My understanding was it clouded the title, but I never knew it prevented any improvements being made.

Q. You don't know, as a matter of fact, do you, of your own knowledge, whether the government or the Illinois Central Railroad built the whole of the south pier?

A. The only knowledge I had of it was merely that it was said that the United States Government was building the pier, and the men who worked on it and everything of that kind, said they were at work for the government.

Q. Did they say that?

A. Yes.

Q. Did they ever tell you so?

A. Yes.

Q. How long since any man working on the south pier ever told you?

A. Many years.

Q. How many years?

A. When the piers were first built, some 45 or 50 years ago.

Q. As a matter of fact, within the last 15 years no one has told you, working on that south pier, that he was working there for the United States Government?

A. No, I never happened to come in contact with them

during that time.

Q. As a matter of fact, you haven't come in contact with them for the past 20 years, have you?

A. No.

Q. So that as a matter of fact, say, since 1869, you do not know of your own knowledge whether the government or the Illinois Central Railroad built the whole of that south pier?

A. Not of my own knowledge, no.

Q. Far as you know the Illinois Central may have built some portion of it?

A. It is possible.

Q. I speak of this because a witness the other day testified that they did.

A. Well, I don't know that. My understanding of the matter always was that the government—

Q. You presume the government built the south pier?

A. Yes, I knew they built what are called 3-22-218 the piers.

Q. You knew they started extending the south pier years ago?

A. And built it out so as to cut off this channel that is spoken of.

Q. Now, you don't know when the last extension of the south pier was made, do you?

A. I don't know whether there has been an extension since I did take notice of it or not.

Q. What date was that, 25 years ago?

A. Oh, no; later than that. I don't recollect how long ago I took any particular notice, probably 8 or 10 years.

Q. When was the last time the south pier was extended so far as you know?

A. Couldn't say when it was extended.

Q. It may have been 20 years ago?

A. It may be, yes.

Q. I suppose when vessels came down in a norther and rounded that sand bar outside of this channel Mr. Jewett speaks about it would be impossible almost for them to sail north against the north wind and get the Chicago river, would it not?

A. Yes.

Q. Had to depend upon tows to take them up?

A. Yes, and had to lie at anchor outside before the tow boats were in use.

Q. Just as at the present time with the wind dead on

idence before
faster.

from the west it is very difficult for vessels to get into the mouth of the Chicago river?

A. Sailing vessels, I should say it would be, with the wind from the west, find great difficulty coming in.

Q. Now your testimony with regard to the depth of water needed for a dock is based entirely upon the demands of commerce in your opinion as it now exists, is it not?

A. Yes.

Q. And when you testified that 16 feet of water was necessary to accommodate that commerce of all kinds, you referred to the commerce as it now exists, did you not?

A. Yes.

Q. Are you familiar with the piers that have been used for commerce north of the Chicago river up to the Wisconsin state line?

A. Yes.

Q. To save time, I will ask you if you recollect there is a pier at Waukegan?

A. Yes.

Q. There is a pier at Evanston?

A. Yes.

Q. Now, do you know of any other piers used for commerce north of the Chicago river excepting those two piers?

A. That are used at present?

Q. Yes.

A. I don't know even that those are used, but there were piers all along the shore.

A. That is a pretty general estimate?

A. Yes, well, there were at Kenosha and Racine—

Q. Wait a minute. Kenosha is in Wisconsin. I asked you south of the Wisconsin State line?

A. I beg your pardon, I didn't understand you.

Q. Are there any other piers used for commerce, excepting the pier at Waukegan and the pier at Evanston?

A. Not that I know of.

Q. Do you know that the pier at Evanston was built under a charter granted by the State of Illinois?

A. I do not, no.

Q. By the people that were building Northwestern University?

A. No, I do not.

Q. Don't recollect about that?

A. I never knew by whom it was built.

Q. You say in 1836 the average tonnage of the average craft doing business in Chicago harbor was 100 tons?

A. Well, those doing business in Chicago, I should say, was; yes, and that is a liberal allowance, in my opinion.

Q. Do you recollect what the average tonnage was of vessels doing business in Chicago harbor, say in the year 1869?

A. The average tonnage in 1869?

Q. Yes.

A. No, I don't recollect, I never paid particular attention to it.

Q. You recollect the average tonnage of the vessels engaged in doing business in Chicago harbor, say, in the year 1880, 15 years ago?

A. No.

Q. Or '82?

A. No, couldn't say what the average was.

Q. As a matter of fact, the tonnage of vessels engaged in navigation on Lake Michigan has increased enormously since the use of these iron boats, has it not?

A. Yes.

Q. Iron steamboats?

A. Yes.

3-22-219 Q. Do you know what the average tonnage of all craft engaged in commerce and using the Chicago harbor is now, all kinds?

A. Well, I can only give you my opinion.

Q. I don't want your opinion.

A. I have no personal knowledge, because I never measured that.

Q. I am not only now speaking of the grain carriers, the lumber carriers, the ore carriers, but all kinds of vessels engaged in commerce, the average?

A. Well, taking the tonnage or the number of vessels—taking the tonnage, I should say, say—

Q. The average per vessel?

A. Taking all the tonnage of those that do do business in Chicago, in connection with it, I should say, was about 2,000 tons.

Q. The average tonnage of each vessel?

A. Very near that.

Q. Do you know the number of vessels that are engaged in doing business here?

A. No, I do not.

vidence before
Master.

Q. Do you know the proportion of vessels that are engaged in doing business here that are engaged in the lumber trade, compared with those, all told?

A. Those that are engaged in the lumber trade are a very small proportion.

Q. Have you looked into that matter lately?

A. Well, I have looked into it in a general way, yes.

Q. As a matter of fact, you don't know the number of vessels engaged in the lumber business here in Chicago, do you?

A. No, I do not.

Q. Don't know the number engaged in the grain trade?

A. No.

Q. Don't know the number of vessels engaged in the ore trade?

A. No.

Q. 100,000 bushel of wheat would be a vessel of 3,000 tons?

A. No, a vessel—vessels that carry 100,000 of wheat—yes, about 3,000.

Q. Have you any idea of the number of vessels engaged in trade here in Chicago, the number of them that has a tonnage of 2,000 tons?

A. No.

Q. As a matter of fact, are there fifty of them?

A. My opinion is over 100, a great deal.

Q. That have a tonnage of more than 2,000 tons?

A. Yes.

Q. Are there more than 150 of them?

A. I don't know that; I couldn't say. I should think there was a good deal over 100; I don't even know if that is correct.

Q. May be 125 or may be 75 of them?

A. Yes, that is true, there may be. Perhaps the 2,000 was a little too high. I would correct that probably by saying 1,500, but I think—

Q. I am not speaking of the average of the grain carriers, but of all kinds of vessels.

A. Well, that is the reason I say—I say we will put all kinds of vessels, lumber and other small vessels, as we call them, I should say 1,500 tons was about a fair average.

Q. Now, do you know how much draft of water a boat carrying 1,500 tons, round bottom boat, takes?

A. She ought to have at least 14 feet; I should think that that was a light draft for a vessel that size.

Q. Fifteen hundred tons?

A. Fifteen hundred tons, yes. Our vessels of 5 and 600 tons used to draw 12 to 13 feet of water. I had several vessels about that size that used to draw anywhere from 12 to 13 feet; none of them over. Well, there was one 625 tons; the rest were little, about 600 tons.

Q. You don't know how much you allow draft per thousand tons; how much extra?

A. Well, that depends a good deal upon the construction of the vessel. You can make a vessel of very much larger tonnage by length and breadth by not deepening her.

Q. You can make a vessel carrying 100,000 bushels draw no more water than a vessel carrying 50,000?

A. Yes, but she wouldn't be as safe a vessel.

Q. Of the same build?

A. Yes, the same build.

Q. Excepting she would be larger?

A. Yes, but she wouldn't be as safe.

Q. You say in the last 15 years the capacity of the vessels has doubled?

A. I think so.

Q. When were St. Clair Flats deepened to 18 feet?

A. I couldn't say what year.

Q. How long—

A. I think it was many years ago.

3-22-220 Q. Twenty years ago?

A. That might not have been deepened to 18 feet at that time, but they were—

Q. That is the question, how many years ago was that deepened to 18 feet?

A. My opinion is it must be very nearly 20 years.

Q. What was the depth before that?

A. I have seen a great many vessels aground on there drawing seven feet and a half water.

Q. To what depth of water was it deepened the second time?

A. That was the channel at the time.

Q. Seven feet?

A. Seven and a half.

Q. The channel jumped from 7 1-2 to 18 about 20 years ago?

A. No.

Q. Well, take the question.

A. It didn't jump from 7 1-2 to 18 at one jump.

evidence before
Master.

Q. I want to know how many years ago it was that it was made an 18 foot channel.

A. My opinion is, it must be nearly 20 years ago. I don't know the exact time.

Q. And now what was the channel that was maintained prior to that time?

A. Well, I was only telling you what the natural channel was there before the government took hold of it.

Q. But that was 40 years ago.

A. That I couldn't say; they kept deepening it from time to time; it had various stages of water.

Q. Your testimony in regard to that is a general recollection.

A. Certainly.

Q. Rather than a precise statement of facts?

A. Yes.

Q. Supposing you owned some land south of the Chicago river, south of the main channel and between the main channel and your land there was shallow water, the main channel being a short distance from your land, and that your land also fronted east on Lake Michigan and there was a long distance of shallow water. To get the channel as deep as the main channel of the Chicago river in continuing a dock out to get to deep water, which way would you go, north from the Chicago river or east into the waters of Lake Michigan?

A. I would construct it wherever it would cost the least money, and wherever it was the most desirable.

May 24, 1895.

LEWIS T. MOORE, a witness called on behalf of defendant, being first duly sworn testified as follows:

Direct Examination by Mr. Ayer.

Q. Please state your name, age, residence and occupation.

A. Lewis T. Moore; residence, Chicago; occupation, consulting engineer for the Illinois Central Railroad Company.

Q. How long have you resided in Chicago?

A. Since November, 1880.

Q. How have you been engaged during your residence in Chicago?

A. I have been engaged in engineering work and other work for the company since that time.

Q. How long have you pursued the occupation of a civil engineer?

A. Since 1867.

Q. State, if you know, by whom the south pier at the mouth of the Chicago river was built, and when?

A. I do not know when it was built, or by whom.

Q. How long has the present pier been in existence there, so far as you know?

Mr. Hamline: Objected to, as he don't know anything prior to 1880; it don't appear that any of it has been built since then.

Q. Do you know how long it has been in existence, so far as you do know?

Mr. Hamline: I object to that.

A. Since 1880 it has been there.

3-22-221 Mr. Hamline: I object to his testifying to a negative.

A. It was there in 1880 when I came to Chicago.

Q. Do you know who has had control of that pier ever since then?

A. United States Government, or officers in Chicago.

Q. I wish to call your attention to a map on file in this case, marked "Defendant Illinois Central Company's Exhibit map number 10," commonly called the Morehouse map. Will you please state if you notice at the south end of that map a pier extending southeast from Thirteenth street pier, marked "Built, 1870?"

A. Yes, sir.

Q. And also a prolongation of that pier in dotted lines in the same direction on to the south apparently as the north line of Sixteenth street, marked "Built, 1882?"

A. Yes.

Q. Can you state when and by whom that outer pier shown upon the map in dotted lines marked "Built, 1882," was constructed?

A. It was built in 1882.

Q. By whom?

A. By the Illinois Central Railroad Company.

Q. Who had charge of that construction?

A. I had charge of it.

Q. How was that pier built; what did the work consist of?

idence before
water.

A. It consisted of cribs filled with stone, taken to the spot and sunk, one after the other, and then built up on the top to five or six feet above the water.

Q. How wide was that pier, or breakwater?

A. Sixteen feet.

Q. Who had charge of the construction of that work?

A. I did.

Q. You know whether or not the work was afterwards injured or displaced by the action of the waves?

A. It was affected and shaken out of line and out of shape by the action of the waves and the storms afterwards.

Q. And was it afterwards replaced?

A. It was afterwards replaced.

Q. Do you remember when that was?

A. When the work was completed.

Q. When was that replacement, if you remember?

A. I don't remember exactly when we replaced the timbers that were knocked off at that time, unless we did it when the whole was completed.

Q. Do you know when the whole was completed?

A. In 1889.

Q. When was the pier first built?

A. In 1882.

Q. Was it finished at that time as far south as 16th street?

A. It was.

Q. How far did it project above the surface of the water?

A. Five or six feet. Six feet I think was the height that we finished it.

Q. Do you know how long after that that this storm or these storms occurred which injured the work?

A. As nearly as I can remember now, it was one of the spring storms after that that the top was knocked off.

Q. You don't know what year?

A. No, I don't know just what year it was.

Q. Are you familiar with the slip extending north from the north line of 16th street extended, which has been built inside or west of that breakwater?

A. I am.

Q. Now, I will ask you whether you know of the dumping of any earth or other material inside of that breakwater between sixteenth street and the north line of lot 21; shown upon the map?

A. I do.

Evidence
Master.

Q. When was it?

A. It was in August, 1882.

Q. Was that before or after the lines of the slip were marked out?

A. Before.

Q. Do you know who brought that material and dumped it there?

A. Henry Fox & Company were the contractors.

Q. Where did they bring it from?

A. I don't know. From some work as I recollect up the river. They were doing some excavation, they wanted to dispose of the material and we took it at a low price to have them dump it in there, and save them going out into the lake three miles to dump it.

3-22-222 Q. Do you know how many yards of earth were dumped there by their scows?

A. We paid them for 2,329 yards, as I recollect, from the vouchers.

Q. Do you know where they dumped it, what part of that area?

A. I don't.

Q. Did you have charge of that at all at that time, of dumping that material there? Did you have any oversight over that work?

A. No, only a general oversight of the lake front work, all of it.

Q. Will you state whether you have made an investigation to ascertain whether there was any one in the employment of the Illinois Central Railroad Company here in Chicago who does have knowledge of where that material was dumped inside of that inclosure?

A. I think not. The foreman working directly under me is dead, who looked after the dumping of those scows, took account of them and saw where they dumped.

Q. Where is Henry Fox?

A. He is dead.

Q. Has there been any dumping of material there by scows since the year 1882?

A. No, sir.

Q. Can you state when the present slip at the foot of 16th street was marked or staked out?

A. I staked that in 1887, or gave lines for it.

Q. When was the slip actually constructed?

vidence before
Master.

A. In the last half of 1889. Commenced the work in July.

Q. I will now call your attention to the three piers shown on the Morehouse map between Randolph street extended and the Chicago river, marked "Built, one of them 1872 and 1873, the other built 1881, and the other built 1880," piers 1, 2 and 3. Will you state whether, since you have been in Chicago and in the employment of the Illinois Central Railroad Company, there has been any dredging done in these slips between these piers?

A. There has.

Q. State when?

A. The two south piers, number 2 and 3 have been built mostly since I was in Chicago. Pier number 3 had the outer work in and was not filled when I came here, the filling was going on and continued in 1881. Pier number 2 was built in 1881, and I attended to that work and the filling of it. When we built the piers we dredged to 18 feet between the piers and threw the material over into the pier, 18 feet at a distance of ten feet from the face of the piers, on both sides of the pier built in 1881, pier 2.

Q. That is, in each of the two slips?

A. In each of the two slips.

Q. Why was the water dredged to that depth?

Mr. Hamline: Objected to as immaterial and irrelevant.

A. To accommodate the vessels, navigation.

Q. What vessels?

A. Vessels coming to the piers.

Q. When you say to a depth of 18 feet, what do you have reference to, to the mean level or—?

A. 18 feet below city datum.

Q. Will you state whether the railroad company has done any dredging since you have been here in and about slip C shown on that map?

A. It has.

Q. And for what purpose?

A. So the large boats could get into the slip.

Q. To what depth has the company dredged there?

A. 18 feet.

Cross-Examination by Mr. Hamline.

Q. You recollect the spring storm which occurred some time after the year 1882 which tore loose from the exterior

government breakwater in front of the Lake Park a considerable section of timber and precipitated it upon this breakwater in 1882?

A. Yes, sir; I recollect seeing the timber.

Q. That was the instrument that demolished so much of this breakwater in 1882 as did disappear, wasn't it?

A. That broke the timbers off at the top there, the principal cause of the damage.

Q. That was brought down by the northeast gale and projected to that breakwater like a battering ram, was it not, and bore that down?

A. Yes, sir.

3-22-223 Q. That was some three years, possibly, after the year 1882, was it not, somewhere along there?

A. I don't recollect just when it was. Every spring does more or less damage, but I remember that special occasion when that timber knocked that off, without remembering the year.

Q. Did I understand that you were the traffic engineer of the Illinois Central?

A. I was civil engineer.

Q. You are familiar with the various structures erected by the Illinois Central along the lake front since 1880?

A. Yes, sir.

Q. You recollect the uses of the docks north of Randolph street in 1887, generally?

A. I think I do.

Q. Are they used substantially to-day as they were then?

A. In 1887?

Q. Yes.

A. No, they are not used just the same as then.

Q. What change has there been?

A. On the north pier, pier number 1, there is a box factory and lumber yard and other firms. Luddington, Wells and VanSchaick has a lumber yard on the next pier south, Rathbone, or a firm with Rathbone in it at that time had the middle pier and pier number 3 was occupied by the freight house on that pier which is there now and railroad tracks.

Q. What occupies pier number 1 now?

A. Pier number 1 is occupied by the Norwood and Butterfield Lumber Company on the north, the Government Life Saving Station at the northeast corner; on the south side the Joy Morton & Company, salt dealers.

Q. Who occupies pier number 2 now?

vidence before
Master.

A. Pier number 2 is—. The only lessee on that pier is Peabody Coal Company.

Q. How many tracks are there on pier number 2?

A. There is one and there may be two at the east end, there is one any way.

Q. That connects with this coal company yard?

A. Yes, they run through the coal yard or by it.

Q. What occupies pier number 3 now?

A. Pier number 3 is occupied by the tracks, this freight house I speak of, and there are two coal firms have leases on it.

Q. These firms you speak of as occupying these piers are all lessees of the Illinois Central Railroad Company, are they not?

A. They are.

Q. Well, substantially there is about the same users of these three docks as there was in 1887 excepting the tenants have changed?

A. Tenants have changed, that is all.

Q. Which is the more expensive, dredging or building the crib work of equal depth?

A. I don't understand the question, I think.

Q. Which is the more expensive to build, say a dock 100 feet long by 100 feet wide as you built those docks in 1881 or to dredge a space occupied by those docks?

A. With a dredge you can get the material handled perhaps for 2 cents a yard, the quantity of material you want handled. I either misunderstand your question or there is no connection between a crib or a dock that is built up above the ground.

Q. Take dock number 3, you observe?

A. Yes.

Q. You dredged that to 18 feet of water. Dock number 2 you will say. Dredged that 18 feet of water on each side?

A. Yes.

Q. Now, which would cost the most, to build that dock or to dredge the space occupied by that dock to a uniform depth of 18 feet of water?

A. It would cost the most to build pier.

Q. Assuming that pier number 2 was built in ten feet of water, the question is, and was it built through the water up to a height of six feet above the water, and assuming, on the contrary, that the submerged land occupied by that pier was dredged from ten feet of water down to 18 feet of water,

which would be the most expensive, and in what proportion?

A. The building of the pier and filling it to that height above water would cost something over \$70,000. The excavating of the earth for eight feet would cost about \$22,000.

Q. So it would be in the proportion of about three to one?

A. Yes, sir.

Q. Fully three to one?

A. Fully three to one.

Re-direct examination.

3-22-224 Q. How are the lumber and coal and salt brought to these piers for the lessees who occupy them?

A. The coal is brought by the—the soft coal is brought by cars and delivered either to wagons or to boats. A large trade with boats in the navigation season. They deliver coal from the boats onto wagons. The lumber is brought by vessels, the salt is brought by vessels.

Q. How is the hard coal brought?

A. Hard coal by vessels.

Q. Steam vessels or sailing vessels?

A. The lumber usually comes by sailing vessels, the other, coal by steam vessels. I understand all of it comes by steam vessels.

Q. And the salt?

A. By steam.

Adjourned to Friday, May 31, 1895, 10 o'clock, A. M.

June 14, 1895.

Met pursuant to adjournment.

Present, as before.

Mr. Hamline: I have two or three documents I want to offer here this morning; first of all, I want to offer, if it is necessary, the statement of Anthony Seeberger, Collector of Customs, being page 263 of the printed record in the original case, showing the number and tonnage of vessels entered and cleared at the Custom House, port of Chicago, during the year ending December 31, 1886.

Documents offered in evidence.

Mr. Ayer: My understanding is that all the evidence con-

Evidence before
Master.

tained in the original printed record in this case is still a part of the evidence to be considered by the Court in the question now under investigation, and that counsel on either side are entitled to refer to that evidence, and it is, therefore, unnecessary to make any formal offer of the same at this stage of the cause.

Mr. Hamline: I also offer a map which is referred to on page 264 of the printed record in the original case, and which is referred to in this language: "Attached to the foregoing exhibit is a sketch of Chicago harbor taken from annual report upon the improvement of the harbors of Chicago and Calumet, etc., in charge of Capt. G. I. Lydecker, being Appendix B. B. of the annual report of the chief of engineers, for 1879, showing depth of water at various points in Chicago harbor;" which map is omitted by stipulation of counsel. I now offer that sketch of Chicago harbor with soundings thereon, which map was then omitted as Complainant's Exhibit Q.

I also offer in evidence a statement made by the deputy collector of customs, showing number and tonnage of vessels entered at the port of Chicago, sail, steam, both foreign and coasting, and also clearances for the year 1881 and the year 1884; also a statement of vessels owned in the district of Chicago in 1881 and 1894, respectively, with their tonnage. I offer that as Exhibit R.

Mr. Ayer: I object to this evidence as incompetent. The objection is not made, however, to the form of the certificate.

Mr. Hamline: I will offer in evidence an act of the private laws of the State of Illinois, approved February 16, 1857, being an act to incorporate the Evanston Pier Company, which is as follows:

"Whereas, George F. Foster and others have associated themselves together for the purpose of building a bridge pier in Lake Michigan, at Evanston, in Cook county, and

"Whereas, A committee duly appointed and authorized, have secured a portion of the stock for building the same, and have contracted to have the said pier built; therefore,

"Section 1. Be it enacted by the people of the State of Illinois, represented in the General Assembly, That said George F. Foster and all such other persons as are, or may hereafter be associated with him, their successors and assigns, be and are hereby constituted a body politic and corporate, by the name of 'Evanston Pier Company;' and by that name they shall be capable in law of contracting and being contracted with, of suing and being sued, and of pleading and being impleaded in any court of law and equity, and they are hereby authorized to construct, maintain and operate a bridge pier in Lake Michigan, at Evanston, in Cook county, and to acquire, hold, occupy and enjoy, all such real and personal estate as may be necessary and proper to carry out the purposes of this corporation.

2. The capital stock of said company shall not exceed forty thousand dollars, and be divided into shares of fifty dollars each, and the stock shall be transferable upon the books of the company.

3. The business of said company shall be transacted by five directors, to be chosen annually, and George F. Foster, P. Judson, F. H. Benson, George W. Reynolds and John L. Everidge shall be and are constituted the first board of directors. The directors shall have full power to control and manage said pier, to establish rates of wharfage and collect wharfage dues; to appoint necessary agents, and to make all needful rules, regulations and by-laws for the management of the business of said company, and to secure and collect the necessary stock for building said pier.

4. Each stockholder shall be individually liable only to the amount of his stock, and the stock heretofore subscribed shall be binding upon the stockholders respectively, and upon the passage shall become the property of and vest in said company, and the contract made by said committee and all acts done by them in pursuance of the authority vested in them, shall be binding upon said company, and the said committee, or any one of them, shall not in any way be liable for the same.

5. At the close of navigation of each and every year the directors shall declare an annual dividend of the net proceeds arising from operating said pier, and the same shall be divided

dence before
after.

among the stockholders according to the number of shares of each.

6. Any three of the directors may call a meeting of the stockholders by giving five days' notice, by posting up three notices in the town of Evanston, of the time and place of such meeting, and at any meeting five stockholders shall constitute a quorum, and a majority of the shares represented by those in attendance shall govern—each stockholder being entitled to as many votes as he has shares.

7. This act to take effect from and after its passage. Approved Feb. 16, 1857."

Mr. Ayer: I object to the evidence on the ground that it is immaterial and irrelevant.

Mr. Hamline: I also offer in evidence an ordinance adopted by the city council of the city of Chicago on the 4th day of August, 1851, entitled "Concerning the Harbor," which is as follows:

"Be it ordained by the Common Council of the City of Chicago:

I. That there shall be annually appointed by the common council a harbor master, who shall hold this office for one year and until the qualification of his successor. He shall perform all duties which may be required of him by this ordinance or by any resolution of the common council, and shall receive for his services a yearly salary of three hundred dollars payable monthly.

II. The harbor master is hereby authorized and required to give such orders and directions relative to the location, change of place or station, manner of moving or use of the harbor, of any vessel, craft or float, lying or moving or laid up in the harbor not in use, as may be necessary to promote order therein and the safety and equal convenience of such vessels, crafts or floats. And any owner, master or other person having charge of the same, who shall refuse or neglect to obey any such order or direction, shall be subject to a penalty of twenty-five dollars for every such neglect or re-

fusal, which penalty shall constitute a lien upon such vessel, craft or float until fully paid. Evidence t
Master.

III. Whenever there shall be in the harbor any vessel, craft or float insecurely fastened, adrift, sunken or laid up not in use, which may require to be fastened, raised, removed, or its location changed, it shall be the duty of the 3-22-226 harbor master to notify the owner, master or other person who may be in charge thereof, to secure, raise, or remove such vessel without delay. But if the harbor master shall be unable to find the master, owner or person in charge of such vessel as aforesaid, or if no person answering such description can be found by him, notice shall not be required. And any person who shall neglect or refuse to comply with such order or direction shall be subject to a penalty of twenty-five dollars, and a further penalty of ten dollars for every day he or they shall neglect or refuse to observe the same, which penalties shall constitute a lien upon such vessel, craft or float, until fully paid.

IV. If any vessel, craft or float shall not be secured, raised, removed, or its location changed, in compliance with the directions of the harbor master, after notice, or, if the harbor master shall be unable to serve such notice as aforesaid, in either case it shall be his duty to cause such vessel, craft or float to be secured, raised, removed, or its location changed as aforesaid, employing such assistance as may be necessary for the purpose. All expenses which may be incurred in any case, including a reasonable compensation to the harbor master, shall be recoverable of the owner, consignee, master or other person having charge of such vessel, craft or float, and the same are hereby declared to be a lien upon the same until fully paid. And if any person shall resist the harbor master, or any person acting under him, in the execution of such duty, or of any duty imposed upon him by this ordinance, he shall be subject to a fine of not less than ten dollars and not exceeding one hundred dollars, and may be imprisoned not exceeding thirty days.

V. All penalties, fines, damages and expenses which may be made or become a lien upon any vessel, craft or float, by the provisions hereof, shall attach from the time the right of action may accrue, and the harbor master is hereby authorized to detain any vessel, craft or float subject to such lien,

vidence before
Master.

or such parts of her rigging, anchors or apparel as may be sufficient to discharge the same. Such lien, if not otherwise discharged, may be enforced against the vessel, or property so detained, by an attachment against such vessel, craft or float by her name, or against the owner thereof, if known, in the manner provided by the laws of this State for the enforcement of maritime claims against boats and vessels. All suits which may be brought under this ordinance, whether in rem or in personam, shall be brought in the name of the city of Chicago, and all expenses which may be incurred in such detention shall likewise be a lien upon such vessel, and recoverable as part of the original cause of action. All moneys which may be paid to or collected by the harbor master, or which shall be collected in any suit instituted as aforesaid, shall be paid, by the officer collecting the same, into the city treasury: Provided, such part thereof as may, in any case, be recovered for and on account of the services of the harbor master shall be paid to him. If any person shall resist the harbor master, or any person acting under him, in the detention of any vessel for the purposes aforesaid, he shall be subject to a fine of not less than ten dollars and not exceeding one hundred dollars.

VI. No master, owner or other person in charge of any vessel, craft or float shall cause, or suffer the same to remain, at or within one hundred feet of the south pier for a longer period than is actually necessary to furl sail on coming in or make sail at departing, under a penalty of ten dollars; Provided, rafts or vessels necessarily used in the construction or repair of the piers shall not be deemed to be within this provision.

VII. No vessel, craft or float shall be so moored, or anchored within the harbor or in any slip or dock as to prevent the passage of any other vessel, craft or float, nor shall any vessel, craft or float be so moved as to run against or injure any bridge across the river or any branch thereof, under a fine of not less than ten dollars nor exceeding one hundred dollars, to the master, owner, or person in charge thereof.

VIII. All vessels, crafts or floats navigating the harbor, when passing any bridge or ferry, shall be moved past the same as expeditiously as consistent with a proper movement in the harbor, and no vessel, craft or float shall be so anchored

or fastened as to prevent any bridge from a free and speedy opening, or any ferry from a free and direct passage, 3-22-227 nor shall any line or fastening be so thrown, laid or made fast as to cross the track of any bridge, or ferry, unless for the purpose of moving a vessel, craft or float past the same, under a penalty of twenty-five dollars for each offense, to the master or other person having charge of such vessel, craft or float.

IX. Whenever any person having charge of, shall wish to move any vessel, craft or float past any ferry or bridge, reasonable time shall be allowed for the opening of the same, and any person who shall move any vessel, craft or float against any bridge or ferry, or the draw of any bridge, before the same shall be opened, to the injury thereof, shall be subject to a fine not exceeding five hundred dollars, and be likewise answerable to the city for damages.

X. No person discharging the cargo of any vessel, craft or float shall suffer any part of such cargo to remain projecting over the front of any wharf after such vessel, craft or float shall remove from the wharf under a penalty to the master, owner or other person having charge of such vessel, craft or float, occupying the said wharf, of ten dollars for every hour such projection shall continue.

XI. All vessels, crafts or floats lying in or navigating the harbor shall be respectively governed by the following further provisions:

1. All vessels using steam shall have their smoke pipes so constructed and managed so as to prevent sparks or coals of fire escaping therefrom, and shall be moved slowly and under a low head of steam.

2. All said vessels shall likewise be moved slowly under short sail, so as not in any case to endanger or injure other vessels.

3. No master or other person owning or having charge of any vessel, craft or float shall leave the same in said harbor without having on board or in charge thereof some competent person to control and manage and secure the same, without first obtaining permission of the harbor-master.

Ordinance before
master.

4. No vessel, laden in whole or in part with gun-powder or gun-cotton shall land at, or make fast to, any dock or wharf upon the Chicago river, or either branch thereof, between the south line of the school section and Chicago avenue, or to discharge such gun-powder or gun-cotton within said limits. The harbor master is hereby empowered to prevent any vessel with gun-powder or gun-cotton on board from making fast to any wharf or dock, or unloading within the limits aforesaid.

5. All vessels, crafts or floats whether using steam or otherwise while lying in the harbor, shall have and keep their anchors inboard, or dropped under the vessel's fore-foot, and their lower yards cock-billed and their upper yards braced up sharp.

6. They shall likewise have and keep outboard during the night time a conspicuous light, and shall have extinguished or secured safely at dark all fires which may be kept on board.

7. No vessel, craft or float shall be suffered to lie in the harbor adrift or insecurely fastened.

8. Any master, owner or other person having charge of any such vessel, craft or float, shall be subject to a fine of not less than twenty dollars nor exceeding one hundred dollars for every violation of any of the foregoing provisions, and to like fine for every refusal to conform thereto when directed by the harbor master.

XII. All penalties, fines and damages which may be incurred by the owner, consignee, master or other person having charge of any vessel, craft or float, under any provision of this ordinance are hereby declared to be recoverable of and a charge and lien on the vessel, craft or float of which he may be owner, consignee, master or in charge, and such lien may be enforced in the same manner as other liens against the same.

XIII. No person shall cast or deposit, or suffer to be cast or deposited in the harbor or slips within the limits of this city, any earth, ashes, or other heavy substance or substances, filth, logs or floating matter, or any obstructions,

under a fine of not more than one hundred dollars for each and every offense, and not more than twenty-five dollars for every day the same shall be suffered to remain there.

Evidence
Master.

3-22-228 XIV. No person shall unload any boat or vessel at or on any of the public wharves, landings or docks, which now are, or may hereafter be, in this city, or otherwise place or deposit on any such wharf, or dock, or landing, and stone, lumber, timber or fire-wood, or other materials, without permission from the said harbor master, or some other authorized officer of the city, under the penalty of ten dollars for each and every offense.

XV. The words "vessels, crafts and floats," shall be deemed to include every species of steam and other vessels or boats lying or floating in or navigating the harbor, and all rafts of logs, timber, wood, lumber or other floating matter, and the "harbor" shall be deemed to include the Chicago river and its branches to their respective sources, the piers, and so much of Lake Michigan as lies within the distance of one mile of the shores of the city.

Passed August 4, 1851.

Mr. Ayer: That I object to as immaterial and irrelevant.

Mr. Hamline: I also offer in evidence an ordinance entitled "An Ordinance concerning the Harbor," May 1, 1854, and being Chapter 21 of the Charter and Ordinances of the City of Chicago to September 15, 1856, inclusive, compiled, revised and codified by order of the Common Council, by George W. and John A. Thompson, and call special attention to Section 16 thereof which reads as follows:

"The words vessels, crafts and floats shall be deemed to include every species of steam and other vessels or boats lying or floating in or navigating the harbor and also all rafts of logs, timber, wood, lumber or other floating matter, and the 'harbor' shall be deemed to include the Chicago river and its branches to their respective sources, the piers and so much of Lake Michigan as lies within the distance of one mile of the shores of the city."

Mr. Ayer: I object to the evidence as irrelevant and immaterial.

Evidence before
Master.

Mr. Hamline: I also introduce in evidence Chapter 12 of the Laws and Ordinances governing the city of Chicago, January 1, 1866, compiled and arranged by Joseph E. Gary, and being pages 241 to 247 both inclusive of said Revised Ordinances, and call special attention to section 16 thereof, which reads as follows:

"The words vessels, crafts and floats shall be deemed to include every species of steam and other vessels or boats lying or floating in or navigating the harbor and also all rafts of logs, timber, wood, lumber or other floating matter, and the 'harbor' shall be deemed to include the Chicago river and its branches to their respective sources, the piers and so much of Lake Michigan as lies within the distance of one mile of the shores of the city."

Mr. Ayer: I object to that evidence as irrelevant and immaterial. I also reserve an objection to all this evidence on the ground that it is incompetent, it having no bearing whatever upon the question to be determined by the Court in this case, and the Court not being at liberty to take it into consideration.

Chapter 15 of
revised ordi-
nances.

Mr. Hamline: I also introduce in evidence Chapter 15 of the Revised Ordinances of the city of Chicago, compiled and arranged by Murray F. Tuley, counsel to the corporation, and published by authority of the Common Council on July 5, 1873, the same being entitled "Harbor," and comprising pages 41 to 45 inclusive of said Revised Ordinances, and call special attention to Section 16 of said Chapter, to-wit:

"The words vessels, crafts and floats shall be deemed to include every species of steam and other vessels or boats lying or floating in or navigating the harbor and also all rafts of logs, timber, wood, lumber or other floating matter, and the 'harbor' shall be deemed to include the Chicago river and its branches to their respective sources, the piers and so much of Lake Michigan as lies within the distance of one mile of the shores of the city."

Mr. Ayer: Objected to on the ground that it is incompetent, immaterial and irrelevant.

Mr. Hamline: I will also offer in evidence Chapter 25 of

the Municipal Code of Chicago, comprising the ordinances of the City Council, codified and revised by Egbert Jamieson and Francis Adams, published by authority of the City Council, February 16, 1880, being pages 323 to 328 inclusive, and call attention to Section 1,336 thereof, which reads as follows:

Evidence
Master.

"The words vessels, crafts and floats shall be deemed to include every species of steam and other vessels or boats lying or floating in or navigating the harbor and also all rafts of logs, timber, wood, lumber or other floating matter, and the 'harbor' shall be deemed to include the Chicago river and its branches to their respective sources, the piers and so much of Lake Michigan as lies within the distance of three miles of the shores of the city."

Mr. Ayer: Objected to on the ground that it is incompetent, immaterial and irrelevant.

Mr. Hamline: But none of these are objected to on account of the mode of proof of the ordinance?

Mr. Ayer: No.

Mr. Hamline: I think that is all.

Met pursuant to agreement.
Present, as before.

July 9, 1895.

It is stipulated and agreed by council for the respective parties, that on the 18th of May, 1894, a sailing vessel, engaged in commerce upon the lakes, called the Rainbow, was wrecked and drifted to a spot in the lake about four or five hundred feet southeast of the southeast corner of the 13th street pier, where the vessel sank and has since remained. A portion of the wreck is still visible above the water.

Stipulation.

vidence before
Master.

3 22 230 *Statement of Number and Tonnage of Vessels Entered and Cleared at the Custom-House, Port of Chicago, During the Year Ending December 31, 1886.*

Port of Chicago	Coastwise trade.				Foreign trade.										Total.	
	Steam vessels.		Sail vessels.		United States vessels.				Foreign vessels.							
					Steam.		Sail.		Steam.		Sail.					
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.		
	Entered	Cleared														
	3,930	1,661,527	6,006	1,500,413	7	1,448	131	39,715	51	22,467	55	20,739	10,180	3,546,309		
	3,965	1,686,153	5,795	1,437,822	32	13,329	359	111,093	51	22,376	52	19,403	10,254	3,590,176		
Total.	7,895	3,947,680	11,801	2,938,235	39	14,777	490	150,808	102	44,843	107	40,142	20,434	7,136,485		

Custom-House, Chicago, Ill., Jan. 13th, 1887.

ANTHONY F. SEEBERGER,
Collector of Customs.

Statement showing Number and Tonnage of Vessels Entered at Port of Chicago.

YEAR.	COASTING TRADE AMERICAN VESSELS.						FOREIGN TRADE.						TOTAL.	
	SAIL.		STEAM.		Total.	American Sail and Steam.		Foreign— Sail and Steam.		Total— Sail and Steam.				
	No.	Tonnage.	No.	Tonnage.		No.	Tonnage.	No.	Tonnage.		No.	Tonnage.		
1881	8,045	2,053,431	3,406	2,070,136	11,511	4,123,167	48	14,169	201	104,698	339	118,296	11,850	4,231,434
1884	2,562	782,740	4,705	3,534,577	7,269	4,317,317	17	7,592	12	3,376	29	10,958	7,318	4,324,685

Statement showing Number and Tonnage of Vessels "Clear'd" from Port of Chicago,

YEAR.	COASTING TRADE—AMERICAN VESSELS.				FOREIGN TRADE.				TOTAL.					
	SAIL.		STEAM.		TOTAL.		AMERICAN— SAIL AND STEAM.			FOREIGN— SAIL AND STEAM.		TOTAL— SAIL AND STEAM.		
	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.	No.	Tonnage.		No.	Tonnage.			
1884	7,574	2,000,482	3,428	2,000,624	11,202	4,001,110	69	23,482	277	101,627	346	122,550	11,648	4,123,669
1894	2,594	781,104	4,646	3,482,646	7,240	4,263,751	127	91,259	12	3,376	139	94,615	7,979	4,358,388

Evidence before
Master.

3-22-232 *Statement of Vessels Owned in District of Chicago.*

1894—Class.			1881—Class.				
	No.	Tonnage.		No.	Tonnage.		
Sail. Steam.	Propellers.....	78	3,260,736	Sail. Steam.	Propellers.....	28	704,323
	Sidewheelers.....	5	114,128		Sidewheelers.....	3	31,774
	Canal boats.....	21	153,468		Canal boats.....	25	245,769
	Tugs.....	84	187,048		Tugs.....	62	191,621
	Yachts.....	42	40,506		Schooners.....	241	5,870,425
	Schooners.....	123	3,170,758		Sloops.....	2	1,866
	Sloops.....	8	8,341		Yachts.....	5	31,170
	Yachts.....	21	33,230				
Total.....	382	6,968,305	Total.....	369	7,167,087		

Office Collector of Customs, Port of Chicago, June 13, 1895.

I hereby certify that the foregoing tabulated statements are true and correct as appears by the records of this office.

Witness my hand and seal of office this 13th day of June, A. D. 1895.

(Seal.)

Robt. H. McCreary,
Deputy Collector of Customs.

Establishment of Harbor Lines in Chicago Harbor, Illinois.

Chicago Harbor
Lines.

United States Engineer's Office
Chicago, Ill., September 17, 1890.

General:—The Board of Engineers constituted by Special Orders No. 61, dated War Department, Corps of Engineers, U. S. A., Washington, D. C., September 11, 1890, respectfully submit the following report:

The board met as directed, at the United States Engineer's office, Chicago; Illinois, where, after the order convening the board and the instructions of the Department were read, the maps and records of the harbor were consulted and the reports of the Boards of Engineers convened heretofore in 1871 and in 1882 upon the same or similar subject, were examined.

Later a public meeting, which had been previously advertised in the Chicago daily papers, was held at the Director's rooms of the World's Columbian Exposition to hear statements from all persons who desired to be heard upon the sub-

ject before the Board at this meeting and a subsequent one held next day. All parties interested in the establishment of dock and harbor lines and in the use of the submerged lands within the harbor inclosure who desired were heard or presented written documents.

The instructions under which the Board acted are as follows:

It is directed that the Board of Engineers constituted by Special Orders No. 61, Headquarters, Corps of Engineers, September 11, 1890, to consider and report upon the subject of harbor lines (pier and bulkhead) at Chicago, Illinois, shall hold such public meetings as may be necessary and afford a reasonable hearing to all interested parties who desire to present their views upon the subject under consideration.

It is also directed that the Board submit for consideration of the Secretary of War its recommendations as to the location of pier and bulkhead lines to be established under the provisions of Section 12 of the River and Harbor Act of August 11, 1888.

* * * * *

The Board interpret their instructions as limiting their duties to the recommendation for the establishment, by the Secretary of War, of harbor lines under the act of 3-22-233 August 11, 1888, for the protection and preservation of the outer harbor at Chicago, "beyond which no piers or wharves shall be extended or deposits made, except under such regulations as may be prescribed from time to time by him," and that it is not to consider questions relating to any proposed uses of any of the now submerged lands lying between the dock or harbor line so recommended for establishment and the present shore line.

The construction of this harbor basin was commenced in 1871 and was practically completed, except dredging, by 1881. In 1871 a Board of Engineers, composed of Lieut Col. I. C. Woodruff, Maj. G. K. Warren and Maj. D. C. Houston, Corps of Engineers, recommended the establishment of a dock line, which recommendation was approved by the Secretary of War, October 4, 1871, as follows:

vidence before
Master.

The Board is of the opinion that an open space of not less than 1200 feet west of the breakwater north of the north line of Randolph street and 2,000 feet west of the breakwater south of that line is sufficient for the purpose of a roadstead, and would recommend that a line commencing at a point on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present designed, be established as the harbor line, beyond which no wharves or other structures shall extend.

This harbor line, as established in 1871 and adhered to since that date, terminated southward, opposite the present end of the easterly breakwater just north of the present east entrance to this outer harbor basin, at which point the harbor as then designed, terminated. Since that date the easterly breakwater has been further extended and the harbor, instead of having its southerly limit between Van Buren and Congress streets of the city of Chicago extends as far south as to between Twelfth and Thirteenth streets of the city.

There have been no reasons presented to the board for any change in the position of the harbor line as far as it has been established, nor for a change of direction of this line southward from Van Buren street. The reasons given by the Board of Engineers of 1871 of the location of the harbor line as far as Van Buren street still hold good, and are applicable to the extension of this line southward throughout the limits of the harbor.

The board, therefore, recommend the following harbor line for adoption:

Commencing at a point on the south side of the United States south pier of the entrance to Chicago river, and 1,200 west of the west line of the easterly breakwater, outer basin, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south to the southern limit of the outer harbor.

The board was directed to hear statements from all parties interested in the subject before it, and under the invitation issued by the board, a number of verbal statements and written documents relating to the proposed use for World's Fair (1893) purposes of the submerged lands lying between the proposed harbor (pier and bulkhead) lines recommended and the present shore line were presented to the board, which are appended hereto with the minutes of the proceedings of the board.

Evidence b
Master.

Although these statements and documents relate to a subject that does not seem to come within the province of the board as outlined in the letter of instructions, they have arisen from the action of the War Department under the recommendations of previous Boards of Engineers in 1871 and 1882, and the board considers that it may not be improper to remark upon the matter also.

In 1871 the Board of Engineers, in establishing the harbor line beyond which no wharves or other structures should be built, which line is now recommended to be extended southward throughout the limits of the outer basin, made a recommendation to the Secretary of War, as follows:

As to the question of ownership to the land on the shore from the north line of Randolph to Madison street 3-22-234 is now in the United States Circuit Court of the Northern District of Illinois, on a complaint made by the United States, to which answer was made by the president of the Illinois Central Railroad Company in December, 1869, it would seem proper that no piers should be allowed to be built there until a settlement has been made. Besides the interests of commerce and navigation, there are local matters affecting the legitimate use of the basin, which should be controlled by the city. After all questions of rights along the lake shore have been disposed of, whoever may be entitled to build piers, if such a right exists, should then be required to submit his plans to the engineer department for approval; until that time all parties should be prohibited from filling up any part of the basin now being formed outside of the present line of piling made to protect the tracks of the Illinois Central Railroad Company.

This recommendation was approved by the then Secretary

Evidence before Master. of War, Mr. Belknap, October 4, 1871, (see report Chief of Engineers, 1882, page 2237) and this prohibition against any construction between the harbor line and shore line south of Randolph street and north of Park Row has been since adhered to, as shown herein below.

In 1882 the Illinois Central Railroad Company desired to widen their right-of-way by building a bulkhead farther out than their shore protection, and filling in between it and the then shore line with earth or other material, and this matter was referred to a board of engineers, composed of Lieut. Col. John G. Parke, Lieut. Col. C. B. Comstock, and Maj. G. Weitzel, Corps of Engineers. The report of this board is to be found on page 2234 etc, seq., Report Chief of Engineers, U. S. A., 1882.

In commenting upon this report and in acting upon the recommendations contained therein, the then Secretary of War, Mr. Lincoln, uses the following language (Report of Chief of Engineers, 1882, pages 2231, 2232):

"A further report * * * , with all the previous papers, was * * * submitted to the Attorney General of the United States * * * . In due time the Attorney General returned the papers to the Secretary of War, in closing a communication from the United States Attorney for the northern district of Illinois, who was of the opinion that the title to the soil under the waters of Lake Michigan, up to the line of the shore, has, since the admission of the State of Illinois into the Union, been in said State, and so remains unless a valid grant of the same can be shown * * * . The Attorney General, in transmitting the opinion of the United States District Attorney, advised the Secretary of War—

"The question whether the ownership of the soil is in the company or elsewhere (the United States asserting no title thereto) appears to me to be unimportant in so far as the general Government is concerned, and that the only inquiry which need be entertained by your department is whether the construction of the dock line (Illinois Central Railroad) will obstruct, encroach upon, or interfere with the harbor improvement, and thus injuriously affect its usefulness in the interests of navigation."

* * * * *

"It is considered that it will be premature for this department to approve any plan for the construction or beginning the construction of wharves in the harbor of Chicago until the title to the submerged land upon which they must be built shall be judicially settled. The plan proposed in the report of the Board of Engineers being, in fact, a plan for the beginning of such wharves upon conditions not within the power of the War Department to impose, and the title of the land being still in dispute, is therefore disapproved, and the prohibition now resting against the extension of the present railroad breakwater will be continued."

The suit to determine the ownership of the submerged land, and of the riparian rights of accretion, dockage and wharfage, is still undecided. The United States is not one of the claimants to these rights south of the old Fort Dearborn Addition (Madison street), but these rights are claimed by

- (1) The State of Illinois,
- (2) The city of Chicago, and
- (3) The Illinois Central Railroad Company.

3-22-235 Prior to 1888 there was no general law relating to harbors under which the relative rights of the states and of corporations and individuals claiming under the states or general government, to the use of submerged lands by filling them up, and to riparian rights of accretion, dockage and wharfage, and of the rights of the public generally, or the United States collectively, to the unobstructed and free navigation of the navigable waters of the United States, could be limited or defined, but in the river and harbor act of 1888 is contained the following provision, under which the Board of Engineers is assembled:

Section 12. Where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors, he may, and is hereby authorized to cause such lines to be established, beyond which no piers and wharves shall be extended or deposits made, except under such regulations as may be prescribed from time to time by him.

idence before
factor.

Whatever opinions and consequent actions may have heretofore been had as to the authority of the general government, through its executive departments, in limiting riparian rights, or in directing and conditioning the application of these rights, the board consider that by the establishment under the act of August 11, 1888, of a dock or harbor line, "beyond which no piers or wharves shall be built or deposits made," the Secretary of War limits not only the riparian rights of individuals to wharfage or dockage, and the rights of the State to fill or authorizing the filling in of submerged lands, but limits, also, the rights of the public generally, or of the general government, to the unobstructed rights of navigation, the limit being at this harbor line.

Under this view of the law the board consider that they can recommend neither the approval or the disapproval of any constructions under state, corporate or individual authority between the established dock line and the shores of the lake within the harbor sea. The board is, however, of the opinion that any uses of this area, by filling or other than wharves and docks, as originally contemplated and still desirable, will diminish the possible value of the harbor for commercial purposes. It is further of the opinion that such contemplated uses of the submerged lands within the dock and shore lines will not affect practically the prospective use of this harbor, or the future fulfillment of the necessities of navigation at this port.

O. M. POE,

Colonel of Engineers.

CHAS. E. L. B. DAVIS,

Major of Engineers.

W. L. MARSHALL,

Captain of Engineers.

BRIG. GEN. THOMAS L. CASEY,

Chief of Engineers, U. S. A.

(First indorsement.)

Office Chief of Engineers,

United States Army,

September 19, 1890.

Respectfully submitted to the Secretary of War:

It having been made manifest to the Secretary of War that the establishment of harbor lines is essential to the preserva-

tion and protection of the harbor at Chicago, Ill., a Board of Engineers was constituted by special orders from headquarters, Corps of Engineers, to consider and report upon the subject, and the board recommends for approval of the Secretary of War the harbor and dock lines described in the within report and delineated upon the accompanying chart.

It is recommended that the line selected to be approved and that the Secretary place his approval both upon the report and the drawing submitted.

H. M. ADAMS,
Major, Corps of Engineers, in Charge.

Approved: War Department, September 22, 1890.

L. A. GRANT,
Acting Secretary of War.

LETTERS OF THE CHIEF OF ENGINEERS.

Office of the Chief of Engineers, United States Army, Washington, D. C., September 20, 1890.

Sir: I have the honor to submit herewith the report dated September 17, 1890, of the Board of Engineers constituted by Special Orders No. 61, Headquarters, Corps of Engineers, September 11, 1890, to consider and report upon the subject of harbor lines (pier and bulkhead) at Chicago, Illinois.

The action of this Board has been had under the provisions of the act of August 11, 1888, authorizing the Secretary of War to establish a harbor line beyond which no deposits shall be made. Up to the passage of this act there was no statute authorizing the Secretary of War to fix such lines in our harbors, but several prior acts of the Secretary of War approving suggested lines had been respected in part by riparian owners. Such was the case in Chicago, two Boards of Engineers, of 1871 and 1882, having suggested lines covering portions of the harbor, which lines were approved by Secretaries Belknap and Lincoln. The line suggested in this report is substantially the line recommended by the Boards of 1871 and 1882 and heretofore approved, and in my judgment is correctly located. As to the use the ripa-

Evidence before
Master.

rian owners may make of the space inside the harbor line, the United States would not seem to have control unless such use would evidently obstruct or damage the general navigation of the port. I would, therefore, recommend that the harbor line as recommended by the Board of Engineers on September 11, 1890, be approved by the Secretary of War.

Very respectfully, your obedient servant,

THOS. LINCOLN CASEY,
Brig. Gen. Chief of Engineers.

HON. REDFIELD PROCTOR,
Secretary of War.

In the Circuit Court of the United States, For the Northern
District of Illinois, Northern Division.

People of the State of Illinois
vs.

Illinois Central Railroad Company.

To the Judges of said Court:—The undersigned, Master in Chancery of said Court, to whom, by an order entered therein on the 27th day of October, 1893, the above entitled cause was referred to take proofs and report the same, respectfully reports:

That pursuant to said order of reference he set aside cause for hearing on the 1st day of November, 1894; that on that day, and on divers days to which the hearing was from time to time adjourned, he took testimony of witnesses as appears in the record hereto attached and made a part hereof; that by stipulation of counsel, signatures of all witnesses were waived, and that this record contains all the evidence introduced both on behalf of complainant and defendant, the printed record in the original case being in evidence herein.

(Signed.) E. B. SHERMAN,
Master in Chancery of said Court.

Chicago, August 3, 1895.

Time.	Gross Receipts.	Per Cent.	Amount paid into the State Treasury.
<i>Amount brought forward.....</i>			\$7,938,868 50
For six months ending April 30, 1880...	\$2,368,395 46	7	165,787 08
" " October 31, 1880	2,893,728 27	7	202,560 98
" " April 30, 1881...	2,517,346 22	7	176,214 24
" " October 31, 1881	2,976,689 73	7	208,368 28
" " April 30, 1882...	2,681,463 17	7	187,702 42
" " October 31, 1882	2,976,195 60	7	208,333 66
" " April 30, 1883...	2,601,497 13	7	182,104 80
" " October 31, 1883	2,951,977 00	7	206,638 30
" " April 30, 1884...	2,458,148 86	7	172,070 42
" " October 31, 1884	2,637,274 35	7	184,609 20
" " April 30, 1885...	2,491,886 22	7	174,432 03
" " October 31, 1885	2,762,241 28	7	193,356 89
" " April 30, 1886...	2,468,711 57	7	172,809 81
" " October 31, 1886	2,941,495 56	7	205,904 66
" " April 30, 1887...	2,720,148 23	7	190,410 38
" " October 31, 1887	3,199,488 47	7	223,994 19
" " April 30, 1888...	2,816,877 41	7	191,181 41
" " October 31, 1888	3,253,921 12	7	227,774 48
" " April 30, 1889...	3,013,271 90	7	210,920 03
" " October 31, 1889	3,501,651 68	7	249,315 62
" " April 30, 1890...	3,272,311 40	7	229,061 80
" " October 31, 1890	3,674,561 85	7	257,219 33
" " April 30, 1891...	3,647,096 62	7	255,296 76
" " October 31, 1891	4,038,668 75	7	282,708 91
" " April 30, 1892...	3,967,543 71	7	277,728 06
" " October 31, 1892	4,453,685 09	7	311,757 96
" " April 30, 1893...	4,327,012 90	7	302,890 90
" " October 31, 1893	6,431,090 53	7	450,176 34
" " April 30, 1894...	3,959,747 87	7	277,182 35
Total amount paid to State.....			\$4,517,359 55

EXHIBIT 2.

Soundings, February, 1872.

Circuit Court U. S., Northern Dist. Ill., N. Div.

Exhibit 2

People, etc. }
vs. }
I. C. R. R. Co. }

Marked for identification as Defendant's Exhibit No. 2.
E. B. SHERMAN, Master.

Copied by me Dec. 21, 1896.

LEWIS T. MOORE,
Consulting Engineer, I. C. R. R. Co.

Exhibit 2. 7.243 above city datum=Bench.
6' 2" from top of South Pier to water surface measured at a
point 10' from west end of pier.

South Pier.					20 feet south.				
Shore	9' 6"	8' 5"	8' 0"	7' 0"	Shore	7' 6"	6' 5"	8' 0"	7' 0"
	10 6	9 5	11 9	10 8		6 0	5	10 3	9 3
	10 0	9	10 9	9 8		6 9	5 8	9 3	8 3
	10 0	9	12 6	11 5		6 6	5 5	10 0	9 0
	10 3	9 3	12 9	11 8		5 6	4 5	10 3	9 3
	9 0	8	15 6	14 5		5 6	4 5	10 0	9 0
	9 9	8 8	14 9	13 8		7 3	6 3	10 3	9 3
	10 0	9	7 9	6 8		7 0	6 0	9 0	8 0
	11 9	10 8	9 0	8		7 6	6 5	9 6	8 5
	12 0	11	8 6	7 5		6 9	5 8	10 0	9 0
	11 0	10	8 9	7 8		6 0	5 0	10 6	9 5
	10 0	9	8 6	7 5		7 0	6 0	10 9	9 8
	11 6	10 5	12 3	11 3		4 6	3 5	10 6	9 5
	10 0	9	11 6	10 5		4 0	3 0	8 6	7 5
	8 9	7 8	11 0	10 0		8 0	7 0	11 6	10 5
	8 6	7 5	10 6	9 5		6 3	5 3	11 0	10 0
	9 0	8	14 9	13 8		7 6	6 5	11 9	10 8
	8 0	7	13 0	12 0		8 6	7 5	11 9	10 8
	8 6	7 5	13 0	12 0		4 3	3 3	11 6	10 5
	7 0	6	13 3	12 3		5 6	4 5	11 0	10 0
	4 6	3 5	13 0	12 0		3 3	2 3	11 0	10 0
	5 0	4	12 9	11 8		9 6	8 5	11 0	10 0
	8 0	7	13 6	12 5		6 6	5 5	11 0	10 0
	12 3	11 3	13 6	12 5		7 0	6 0	11 6	10 5
	9 0	8	13 0	12 0		7 6	6 5	12 0	11 0
	6 0	5	14 0	13 0		3 0	2 0	12 0	11 0
	4 9	3 8	14 0	13 0		7 0	6 0	12 3	11 3
	3 0	2	13 6	12 5		4 0	3 0	13 0	12 0
	4 3	3 3	13 6	12 5		6 6	5 5	13 3	12 3
	6 0	5	14 0	13 0		10 0	9 0	13 0	12 0
			13 9	12 8				13 0	12 0

6' 2"

6' 2"

Exhibit 2.

40 feet south.

60 feet south.

Shore	8' 0"	7' 0"	6' 9"	5' 8"	Shore	6' 0"	5' 0"	10' 0"	9' 0"
	8 0	7 0	10 0	9 0		6 0	5 0	9 6	8 5
	9 0	8 0	9 9	8 8		8 6	7 5	10 3	9 3
	8 0	7 0	10 6	9 5		8 0	7 0	10 6	9 5
	7 0	6 0	10 6	9 5		6 6	5 5	11 0	10 0
	6 6	5 5	10 6	9 5		6 0	5 0	10 9	9 8
	6 0	5 0	10 6	9 5		5 6	4 5	10 6	9 5
	5 0	4 0	10 6	9 5		5 6	4 5	10 6	9 5
	5 3	4 3	10 3	9 3		6 0	5 0	10 6	9 5
	5 9	4 8	10 3	9 3		5 0	4 0	10 3	9 3
	6 3	5 3	10 3	9 3		7 0	6 0	10 3	9 3
	7 0	6 0	10 3	9 3		7 0	6 0	10 3	9 3
	6 9	5 8	9 0	8 0		6 6	5 5	9 9	8 8
	6 6	5 5	10 0	9 0		6 0	5 0	10 6	9 5
	5 0	4 0	10 3	9 3		6 6	5 5	10 9	9 8
	4 6	3 5	10 3	9 3		6 9	5 8	11 0	10 0
	4 0	3 0	10 3	9 3		7 0	6 0	11 0	10 0
	4 0	3 0	10 6	9 5		4 4	3 3	11 0	10 0
	7 0	6 0	10 6	9 5		5 6	4 5	10 9	9 8
	5 0	4 0	10 6	9 5		5 0	4 0	10 9	9 8
	4 0	3 0	10 6	9 5		4 4	3 3	10 6	9 5
	6 0	5 0	10 6	9 5		4 9	3 8	11 0	10 0
	5 0	4 0	10 6	9 5		6 6	5 5	11 0	10 0
	5 9	4 8	10 6	9 5		6 6	5 5	11 0	10 0
	7 0	6 0	10 6	9 5		8 4	7 3	11 0	10 0
	4 6	3 5	10 6	9 5		8 10	7 9	11 3	10 3
	7 3	6 3	7 0	6 0		8 0	7 0	10 6	9 5
	8 0	7 0	6 9	5 8		8 2	7 2	11 0	10 0
	9 6	8 5	10 6	9 5		9 8	8 7	12 0	11 0
	9 9	8 8	10 9	9 8		10 0	9 0	12 0	11 0
			12 0	11 0				11 6	10 5

Exhibit 2.

6' 2"

6' 2"

80 feet south.

100 feet south.

Shore	7' 9"	6' 8"	10' 0"	9' 0"	Shore	9' 0"	8' 0"	10' 0"	9' 0"
	6 6	5 5	10 3	9 3		8 0	7 0	10 3	9 3
	8 0	7 0	10 0	9 0		7 0	6 0	10 3	9 3
	8 0	7 0	10 3	9 3		8 0	7 0	10 3	9 3
	7 0	6 0	10 3	9 3		6 6	5 5	10 6	9 5
	6 0	5 0	9 0	8 0		5 6	4 5	10 0	9 0
	5 9	4 8	10 3	9 3		6 3	5 3	10 6	9 5
	5 6	4 5	9 0	8 0		6 9	5 8	10 9	9 8
	5 6	4 5	9 0	8 0		6 6	5 5	10 6	9 5
	6 0	5 0	10 6	9 5		5 0	4 0	10 6	9 5
	6 0	5 0	10 0	9 0		5 6	4 5	10 6	9 5
	6 6	5 5	10 3	9 3		7 0	6 0	10 0	9 0
	4 6	3 5	10 0	9 0		7 0	6 0	10 0	9 0
	4 3	3 3	10 0	9 0		5 0	4 0	10 0	9 0
	4 0	3 0	10 0	9 0		4 6	3 5	9 6	8 5
	5 0	4 0	9 9	8 8		5 3	4 3	9 6	8 5
	4 0	3 0	9 9	8 8		7 9	6 8	9 6	8 5
	5 3	4 3	9 9	8 8		7 3	6 3	9 6	8 5
	5 6	4 5	9 9	8 8		6 3	5 3	9 6	8 5
	3 6	2 5	10 0	9 0		7 0	6 0	9 6	8 5
	5 0	4 0	10 0	9 0		8 3	7 3	9 6	8 5
	6 6	5 0	10 0	9 0		9 0	8 0	9 6	8 5
	9 0	8 0	10 0	9 0		9 0	8 0	9 6	8 5
	9 0	8 0	10 0	9 0		9 0	8 0	9 6	8 5
	9 0	8 0	10 0	9 0		9 3	8 3	9 6	8 5
	9 0	8 0	9 9	8 8		9 9	8 8	9 9	8 8
	9 0	8 0	10 0	9 0		9 9	8 8	10 0	9 0
	9 9	8 8	8 0	7 0		10 0	9 0	9 9	8 8
	10 0	9 0	8 0	7 0		10 0	9 0	10 0	9 0
	10 0	9 0	9 0	8 0		10 0	9 0	10 0	9 0
			10 0	9 0				10 3	9 3

6' 2"

120 feet south.

Shore	9' 3"	8' 3"	10' 3"	9' 3"
	9 0	8 0	10 0	9 3
	7 9	6 8	10 3	9 3
	6 9	5 8	10 3	9 3
	6 0	5 0	10 3	9 3
	7 0	6 0	10 3	9 3
	6 9	5 8	10 3	9 3
	5 0	4 0	10 3	9 3
	7 0	6 0	10 3	9 3
	6 0	5 0	10 3	9 3
	6 6	5 5	10 3	9 3
	7 0	6 0	10 0	9 0
	7 0	6 0	9 9	8 8
	5 3	4 3	9 6	8 5
	5 3	4 3	9 3	8 3
	6 0	5 0	9 3	8 3
	5 3	4 3	9 0	8 0
	4 9	3 8	9 0	8 0
	5 3	4 3	9 0	8 0
	7 6	6 5	9 0	8 0
	9 0	8 0	7 9	6 8
	9 0	8 0	9 0	8 0
	9 3	8 3	9 3	8 3
	9 3	8 3	9 3	8 3
	9 6	8 5	8 3	7 3
	9 6	8 5	9 0	8 0
	9 6	8 5	9 6	8 5
10 0	9 0	9 6	8 5	
10 0	9 0	10 0	9 0	
10 0	9 0	10 0	8 0	
		10 0	9 0	

6' 2"

140 feet south.

Exhibit 2

Shore	8' 3"	7' 3"	10' 3"	9' 3"
	8 0	7 0	10 3	9 3
	7 3	6 3	10 0	9 0
	7 0	6 0	10 0	9 0
	6 3	5 3	10 0	9 0
	5 3	4 3	10 0	9 0
	5 3	4 3	10 6	9 5
	6 6	5 5	10 3	9 3
	6 9	5 8	10 3	9 3
	6 3	5 3	10 0	9 0
	5 3	4 3	10 0	9 0
	5 3	4 3	9 8	8 7
	8 0	7 0	9 3	8 3
	6 6	5 5	9 3	8 3
	7 3	6 3	9 0	8 0
	6 3	5 3	9 0	8 0
	7 6	6 5	9 9	8 8
	6 0	5 0	9 0	8 0
	5 0	4 0	9 0	8 0
	6 6	5 5	8 9	7 8
	9 3	8 3	8 9	7 8
	9 0	8 0	8 9	7 8
	9 3	8 3	9 0	8 0
	9 3	8 3	9 3	8 3
	9 6	8 5	9 0	8 0
	9 9	8 8	9 0	8 0
	9 9	8 8	9 3	8 3
10 0	9 0	9 6	8 5	
10 0	9 0	9 3	8 3	
10 3	9 3	9 6	8 5	
		10 0	9 0	

Exhibit 2. 6' 2"

6' 2"

160 feet South.					180 feet South.				
Shore	8' 0"	7' 0"	10' 0"	9' 0"	Shore	6' 3"	5' 3"	10' 3"	9' 3"
	6 6	5 5	10 3	9 3		5 6	4 5	10 3	9 3
	6 3	5 3	10 3	9 3		4 3	3 3	10 3	9 3
	6 6	5 5	10 3	9 3		7 3	6 3	10 3	9 3
	5 6	4 5	10 6	9 5		7 3	6 3	10 6	9 5
	7 0	6 0	10 3	9 3		6 0	5 0	10 9	9 8
	6 0	5 0	10 3	9 3		7 0	6 0	10 3	9 3
	7 3	6 3	10 3	9 3		7 3	6 3	10 3	9 3
	5 6	4 5	10 0	9 0		5 9	4 8	10 3	9 3
	5 3	4 3	10 3	9 3		5 9	4 8	10 0	9 0
	7 0	6 0	9 9	8 8		7 6	6 5	9 0	8 0
	7 6	6 5	9 3	8 3		7 4	6 8	9 0	8 0
	7 6	6 5	9 0	8 0		5 6	4 5	8 6	7 5
	6 6	5 5	9 0	8 0		8 0	7 0	8 6	7 5
	7 6	6 5	8 6	7 5		8 0	7 0	8 3	7 3
	6 9	5 8	8 6	7 5		8 0	7 0	8 3	7 3
	8 3	7 3	8 6	7 5		6 3	5 3	8 3	7 3
	8 0	7 0	8 3	7 3		5 3	4 3	8 3	7 3
	8 3	7 3	8 3	7 3		8 6	7 5	8 3	7 3
	7 0	6 0	8 6	7 5		7 3	6 3	8 6	7 5
	9 0	8 0	8 6	7 5		8 0	7 0	8 6	7 5
	9 0	8 0	8 9	7 8		8 3	7 3	8 9	7 8
	9 0	8 0	9 0	8 0		8 6	7 5	9 0	8 0
	9 0	8 0	9 0	8 0		9 0	8 0	9 0	8 0
	9 0	8 0	9 0	8 0		7 0	6 0	9 3	8 3
	9 0	8 0	9 0	8 0		7 9	6 8	9 3	8 3
	9 3	8 3	9 0	8 0		9 0	8 0	9 3	8 3
	9 6	8 5	9 3	8 3		9 9	8 8	9 3	8 3
	10 0	9 0	9 3	8 3		10 0	9 0	9 6	8 5
	10 0	9 0	9 6	8 5		10 0	9 0	9 3	8 3
			10 0	9 0				9 9	8 8

6' 2"

6' 2"

Exhibit 2.

200 feet south.

220 feet south.

Shore	4' 9"	3' 8"	10' 3"	9' 3"
	5 0	4 0	10 3	9 3
	4 3	3 3	10 3	9 3
	7 0	6 0	10 6	9 5
	7 3	6 3	10 3	9 3
	5 9	4 8	10 6	9 5
	6 3	5 3	10 3	9 3
	6 0	5 0	9 6	8 5
	4 0	3 0	10 0	9 0
	7 6	6 5	9 3	8 3
	6 0	5 0	8 9	7 8
	8 0	7 0	8 6	7 5
	8 3	7 3	8 6	7 5
	8 3	7 3	8 6	7 5
	8 3	7 3	8 3	7 3
	8 6	7 5	8 3	7 3
	8 3	7 3	8 3	7 3
	8 6	7 5	8 6	7 5
	8 9	7 8	8 9	7 8
	8 6	7 5	8 9	7 8
	9 0	8 0	9 0	8 0
	9 0	8 0	9 0	8 0
	9 0	8 0	9 3	8 3
	9 3	8 3	9 6	8 5
	9 0	8 0	9 6	8 5
	9 0	8 0	9 3	8 3
10 0	9 0	9 6	8 5	
10 0	9 0	9 6	8 5	
10 3	9 3	9 6	8 5	
10 3	8 3	9 6	8 5	

Shore	4' 9"	3' 8"	10' 0"	9' 0"
	5 9	4 8	10 6	9 5
	4 9	3 8	10 6	9 5
	5 6	4 5	10 6	9 5
	5 6	4 5	11 0	10 0
	7 3	6 3	10 3	9 3
	7 3	6 3	13 3	12 3
	5 6	4 5	9 6	8 5
	6 0	5 0	9 6	8 5
	7 0	6 0	9 0	8 0
	8 0	7 0	9 0	8 0
	8 9	6 8	8 9	7 8
	8 0	6 0	8 9	7 8
	8 6	7 5	8 9	7 8
	8 6	7 5	8 6	7 5
	8 6	7 5	8 9	7 8
	8 9	7 8	8 9	7 8
	8 9	7 8	8 9	7 8
	9 0	8 0	9 0	8 0
	9 3	8 3	9 0	8 0
	9 3	8 3	9 3	8 3
	9 9	8 8	9 6	8 5
	9 9	8 8	9 9	8 8
	9 9	8 8	10 0	9 0
	9 9	8 8	10 0	9 0
10 0	9 0	9 9	8 8	
10 0	9 0	9 6	8 5	
10 3	9 3	9 3	8 3	
8 9	8 8	9 6	8 5	
		9 6	8 5	

6' 2"					6' 2"				
Exhibit 2.									
240 feet south.					260 feet south.				
Shore	6' 0"	5' 0"	10' 3"	9' 3"	Shore	6' 0"	5' 0"	10' 0"	9' 0"
	6 0	5 0	10 3	9 3		6 0	5 0	10 3	9 3
	5 0	4 0	10 0	9 0		6 3	5 3	10 3	9 3
	6 0	5 0	10 6	9 5		6 0	5 0	10 3	9 3
	4 3	3 3	10 6	9 5		4 3	3 3	10 0	9 0
	6 0	5 0	10 3	9 3		5 6	4 5	10 0	9 0
	7 3	6 3	9 9	8 8		7 0	6 0	9 0	8 0
	6 9	5 8	9 3	8 3		7 0	6 0	9 0	8 0
	4 9	3 8	9 0	8 0		7 9	6 8	8 6	7 5
	7 9	6 8	8 6	7 5		8 0	7 0	8 0	7 0
	5 3	4 3	8 3	7 3		8 0	7 0	8 0	7 0
	8 3	7 3	8 3	7 3		8 0	7 0	8 0	7 0
	8 3	7 3	8 3	7 3		8 3	7 3	8 0	7 0
	8 3	7 3	8 3	7 3		8 3	7 3	8 3	7 3
	8 3	7 3	8 6	7 3		8 6	7 5	8 6	7 5
	8 6	7 5	8 6	7 3		8 6	7 5	8 6	7 5
	8 6	7 5	8 6	7 3		8 6	7 5	9 0	8 0
	8 6	7 5	8 6	7 3		8 6	7 5	9 0	8 0
	8 9	7 8	8 9	7 8		9 0	8 0	9 3	8 3
	9 0	8 0	9 0	8 0		9 0	8 0	9 6	8 5
	9 0	8 0	9 0	8 0		9 0	8 0	9 0	8 0
	9 3	8 3	9 6	8 5		9 3	8 3	10 3	9 3
	9 3	8 3	10 0	9 0		9 3	8 3	10 0	9 0
	9 3	8 3	10 0	9 0		9 3	8 3	11 0	10 0
	9 6	8 5	10 6	9 5		9 3	8 3	10 6	9 5
	9 9	8 8	10 6	9 5		9 6	8 5	10 3	9 3
	10 0	9 0	10 0	9 0		9 9	8 8	9 6	8 5
	10 0	9 0	9 3	8 3		9 9	8 8	9 3	8 3
	10 0	9 0	9 0	8 0		10 0	9 0	9 6	8 5
	10 0	9 0	10 0	9 0		10 0	9 0	9 6	8 5
			9 6	8 5					

6' 2"

6' 2"

Exhibit 2

280 feet south.

300 feet south.

Shore	5' 0"	5' 0"	10' 0"	9' 0"
	5 6	4 5	10 0	9 0
	5 3	4 3	10 0	9 0
	5 3	4 3	10 0	9 0
	5 3	4 3	10 0	9 0
	6 0	5 0	9 6	8 5
	5 0	4 0	9 0	8 0
	5 6	4 5	8 9	7 8
	7 9	6 8	8 7	7 6
	8 3	7 3	8 0	7 0
	8 3	7 3	8 0	7 0
	7 3	6 3	8 0	7 0
	8 3	7 3	8 0	7 0
	8 3	5 3	8 3	7 3
	6 6	7 3	8 6	7 5
	8 3	7 5	8 9	7 8
	8 6	7 5	9 0	8 0
	8 6	7 8	9 3	8 3
	8 9	7 8	10 0	9 0
	8 9	8 0	10 6	9 5
	9 0	8 0	10 6	9 5
	9 0	8 0	10 0	9 0
	9 0	8 0	12 0	1 0
	9 0	8 3	12 0	11 0
	9 3	8 3	9 0	18 0
	9 3	8 5	11 0	0 0
	9 6	8 8	10 6	19 5
	9 9	9 0	10 0	9 0
10 0	9 0	9 6	8 5	
10 0	9 0	9 6	8 5	
10 0		9 3	8 3	

Shore	6' 0"	5' 0"	10' 3"	9' 3"
	5 6	4 5	10 3	9 3
	5 6	4 5	10 3	9 3
	5 3	4 3	10 3	9 3
	6 0	5 0	9 9	8 8
	5 0	4 0	9 6	8 5
	7 9	6 8	9 0	8 0
	5 3	4 3	8 6	7 5
	7 3	6 3	8 0	7 0
	8 0	7 0	8 0	7 0
	5 3	4 3	8 0	7 0
	8 3	7 3	8 0	7 0
	8 3	7 3	8 0	7 0
	8 3	7 3	8 0	7 0
	7 0	6 0	8 3	7 3
	8 6	7 5	9 0	8 0
	8 9	7 8	9 3	8 3
	9 0	8 0	10 0	9 0
	9 0	8 0	10 6	9 5
	9 0	8 0	11 3	10 3
	8 9	7 8	12 3	11 0
	9 0	8 0	12 3	11 3
	9 3	8 3	12 6	11 5
	9 3	8 3	12 3	11 3
	9 6	8 5	12 0	11 0
	9 9	8 8	11 6	10 5
	10 0	9 0	11 3	10 3
	10 0	9 0	10 0	9 0
	10 0	9 0	9 9	8 8
	10 0	9 0	9 6	8 5
			9 6	8 5

Exhibit 2.

6' 2"

320 feet south.

Shore	6' 0"	5' 0"	10' 6"	9' 5"
	5 3	4 3	10 3	9 3
	5 6	4 5	10 3	9 3
	4 3	3 3	10 3	9 3
	6 0	5 0	10 0	9 0
	7 6	6 5	9 3	8 3
	6 6	5 5	9 0	8 0
	8 0	7 0	8 6	7 5
	8 0	7 0	8 0	7 0
	7 0	6 0	8 0	7 0
	6 0	5 0	7 9	6 8
	7 0	6 0	7 9	6 8
	8 3	7 3	7 9	6 8
	8 3	7 3	8 0	7 0
	7 0	6 0	8 0	7 0
	8 6	7 5	8 9	7 8
	8 6	7 5	9 3	8 3
	8 6	7 5	10 0	9 0
	8 9	7 8	10 9	9 8
	9 0	8 0	8 6	7 5
	7 6	6 5	12 0	11 0
	9 0	8 0	12 6	11 5
	9 0	8 0	12 6	11 5
	9 3	8 3	11 0	10 0
	9 6	8 5	11 9	10 8
	9 9	8 8	11 9	10 8
	10 0	9 0	11 3	10 3
	10 0	9 0	10 6	9 5
	10 0	9 0	9 9	8 8
	10 6	9 5	9 6	8 5
			9 3	8 3

6' 2"

340 feet south.

Shore	6' 0"	5' 0"	10' 3"	9' 3"
	6 0	5 0	10 3	9 3
	5 0	4 0	10 3	9 3
	4 3	3 3	10 3	9 3
	5 3	4 3	10 0	9 0
	6 0	5 0	9 6	8 5
	8 0	7 0	9 3	8 3
	8 0	7 0	8 9	7 8
	8 0	7 0	8 3	7 3
	7 6	6 5	8 3	7 3
	7 6	6 5	8 0	7 0
	8 3	7 3	7 9	6 8
	8 3	7 3	8 0	7 0
	8 6	7 5	8 0	7 0
	8 6	7 5	8 6	7 5
	9 0	8 0	9 3	8 3
	9 0	8 0	10 0	9 0
	9 0	8 0	10 9	9 8
	9 0	8 0	11 3	10 3
	9 0	8 0	12 0	11 0
	9 0	8 0	12 3	11 3
	9 3	8 3	12 0	11 0
	9 3	8 3	11 0	10 0
	9 6	8 5	11 6	10 5
	9 9	8 8	11 6	10 5
	10 0	9 0	11 3	10 3
	9 3	8 3	10 6	9 5
	10 0	9 0	9 9	8 8
	10 0	9 0	9 3	8 3
			9 3	8 3

6' 2" 6' 2" Exhibit 2.

360 feet south.

380 feet south.

Shore	5' 3"	4' 3"	10' 3"	9' 3"	Shore	5' 6"	4' 5"	10' 3"	9' 3"
	5 3	4 3	10 3	9 3		4 3	3 3	10 3	9 3
	5 0	4 0	10 3	9 3		5 0	4 0	10 3	9 3
	4 3	3 3	10 3	9 3		4 6	3 5	10 3	9 3
	3 3	2 3	10 3	9 3		6 9	5 8	10 0	9 0
	7 3	6 3	10 0	9 0		7 3	6 3	10 0	9 0
	8 0	7 0	9 6	8 5		8 0	7 0	9 6	8 5
	8 3	7 3	9 0	8 0		8 3	7 3	9 3	8 3
	8 0	7 0	8 9	7 8		6 3	5 3	9 0	8 0
	8 3	7 3	8 6	7 5		7 0	6 0	8 9	7 8
	8 3	7 3	8 3	7 3		8 9	7 8	8 6	7 5
	8 6	7 5	8 0	7 0		8 9	7 8	8 6	7 5
	8 6	7 5	8 0	7 0		8 6	7 5	8 9	7 8
	8 6	7 5	8 3	7 3		9 0	8 0	8 9	7 8
	8 9	7 8	8 3	7 3		8 9	7 8	9 0	8 0
	9 0	8 0	8 9	7 8		8 9	7 8	9 6	8 5
	8 9	7 8	9 6	8 5		9 0	8 0	10 3	9 3
	8 9	7 8	10 6	9 5		9 0	8 0	11 6	10 5
	9 0	8 0	12 0	11 0		9 2	8 2	13 0	12 0
	9 3	8 3	12 6	11 5		9 3	8 3	13 0	12 0
	9 3	8 6	12 6	11 5		9 6	8 5	13 0	12 0
	9 3	8 3	11 6	10 5		9 6	8 5	11 3	10 3
	9 6	8 5	11 0	10 0		9 6	8 5	11 0	10 0
	9 6	8 5	11 0	10 0		9 9	8 8	10 9	9 8
	9 9	8 8	11 3	10 3		10 0	9 0	10 9	9 8
	10 0	9 0	11 3	10 3		10 0	9 0	11 0	10 0
	7 9	6 8	10 9	9 8		10 0	9 0	10 3	9 3
	10 0	9 0	10 0	9 0		10 3	9 3	10 0	9 0
	10 3	9 3	9 6	8 5		10 3	9 3	9 6	8 5
	10 3	9 3	9 3	8 3		10 3	9 3	9 6	8 5
			9 0	8 0				9 0	8 0

Exhibit 2.

6' 2"

6' 2"

400 feet south.

420 feet south.

Shore	6' 0"	5' 0"	10' 0"	9' 0"	Shore	6' 0"	5' 0"	10' 0"	9' 0"
	4 3	3 3	10 0	9 0		5 9	4 x	10 0	9 0
	5 3	4 3	10 0	9 0		6 9	5 x	9 9	8 x
	4 6	3 5	10 0	9 0		5 0	4 0	9 6	x 5
	6 3	5 3	9 9	x x		7 6	6 5	9 3	x 3
	x 0	7 0	9 9	x x		7 9	6 x	9 3	x 3
	x 0	7 0	9 6	x 5		x 0	7 0	9 4	x 3
	x 3	7 3	9 6	x 5		x 3	7 3	9 6	x 5
	x 3	7 3	9 3	x 3		7 9	6 x	9 9	x x
	x 3	7 3	9 3	x 3		7 9	6 x	9 6	x 5
	x 9	7 1	x	9 0		x 9	7 1	x	9 3
	x 3	7 1	3	9 6		x 0	7 1	x	10 0
	x 6	7 5	9 9	x x		9 0	x 0	10 0	9 0
	9 0	x 0	10 0	9 0		9 0	x 0	10 6	9 5
	9 0	x 0	10 6	9 5		9 0	x 0	11 0	10 0
	9 0	x 0	11 6	10 5		9 0	7 0	11 6	10 5
	9 5	x 3	12 6	11 5		9 0	x 0	12 0	11 0
	9 6	x 5	13 0	12 0		9 3	x 3	12 0	11 0
	9 3	x 3	14 0	13 0		9 3	x 3	13 3	12 3
	9 3	x 3	13 0	12 0		9 3	x 3	13 0	12 0
	9 6	x 5	12 0	11 0		9 6	x 5	12 6	11 5
	9 6	x 5	11 0	10 0		9 6	x 5	11 6	10 5
	9 9	x x	10 6	9 5		9 9	x x	11 0	10 0
	10 0	9 0	10 6	9 5		10 0	9 0	10 9	9 x
	10 0	9 0	11 0	10 0		10 0	9 0	10 9	9 x
	10 0	9 0	10 6	9 5		10 0	9 0	11 0	10 0
	10 0	9 0	10 3	9 3		10 0	9 0	10 3	9 3
	10 0	9 0	10 0	9 0		10 0	9 0	10 3	9 3
	10 0	9 0	9 6	x 5		10 0	9 0	10 0	9 0
			9 9	x x				9 9	x x

6' 2"

440 feet south.

Shore	6' 6"	5' 5"	9' 6"	8' 5"
	6 0	5 0	9 6	8 5
	6 0	5 0	9 3	8 3
	6 0	5 0	9 0	8 0
	6 0	5 0	9 0	8 0
	7 6	6 5	9 3	8 3
	8 0	7 0	9 3	8 3
	8 6	7 5	9 6	8 5
	8 6	7 5	10 0	9 0
	8 6	7 5	10 0	9 0
	9 0	8 0	10 3	9 3
	9 0	8 0	10 9	9 8
	9 0	8 0	11 3	10 3
	9 0	8 0	11 0	10 0
	9 0	8 0	10 9	9 8
	9 0	8 0	11 0	10 0
	9 0	8 0	11 3	10 3
	9 3	8 3	11 6	10 5
	9 3	8 3	12 0	11 0
	9 3	8 3	12 0	11 0
	9 6	8 3	11 9	10 8
	9 9	8 8	12 0	11 0
	10 0	9 0	12 0	11 0
	9 9	8 8	11 3	10 3
	10 0	9 0	10 9	9 8
	10 0	9 0	10 9	9 8
	10 0	9 0	10 9	9 8
	10 0	9 0	10 9	9 8
	9 9	8 8	10 9	9 8
	9 9	8 8	10 0	9 0
			9 6	8 5

6' 2"

460 feet south.

Exhibit 2

Shore	6' 6"	5' 5"	9' 3"	8' 3"
	6 6	5 5	9 3	8 3
	6 6	5 5	9 3	8 3
	6 0	5 0	9 0	8 0
	7 3	6 3	9 0	8 0
	8 0	7 0	9 3	8 3
	8 3	7 3	8 3	8 3
	8 6	7 5	9 3	8 3
	9 0	8 0	10 0	9 0
	8 9	7 8	10 0	9 0
	9 0	8 0	12 0	11 0
	9 0	8 0	12 0	11 0
	9 3	8 3	10 9	9 8
	9 0	8 0	10 3	9 3
	9 0	8 0	10 3	9 3
	9 3	8 3	11 0	10 0
	9 3	8 3	12 0	11 0
	9 3	8 3	12 3	11 3
	9 3	8 3	12 0	11 0
	9 6	8 5	11 3	10 3
	9 6	8 5	11 0	10 0
	9 9	8 8	11 3	10 3
	10 0	9 0	11 9	10 8
	10 0	9 0	12 0	11 0
	10 0	9 0	11 3	10 3
	10 0	9 0	10 9	9 8
	10 0	9 0	11 0	10 0
	10 0	9 0	11 0	10 0
	10 0	9 0	10 6	9 5
	9 6	8 5	10 0	9 0
			9 6	8 5

Exhibit 2.

6' 2"

6' 2"

480 feet south.

500 feet south.

Shore	6' 3"	5' 3"	9' 0"	8' 0"	Shore	6' 3"	5' 3"	9' 3"	8' 3"
	6 3	5 3	9 0	8 0		6 3	5 3	9 0	8 0
	6 6	5 5	9 0	8 0		6 6	5 5	8 6	7 5
	7 0	6 0	8 9	7 8		7 0	6 0	8 9	7 8
	7 6	6 5	8 9	7 8		7 9	6 8	8 9	7 8
	8 3	7 3	9 0	8 0		8 0	7 0	8 6	7 5
	8 6	7 5	9 0	8 0		8 3	7 3	8 6	7 5
	8 6	7 5	9 0	8 0		8 6	7 5	9 0	8 0
	8 9	7 8	9 9	8 8		8 9	7 8	9 3	8 3
	8 9	7 8	11 0	10 0		8 8	7 8	10 3	9 3
	9 0	8 0	12 6	11 5		9 3	8 3	12 0	11 0
	9 0	8 0	12 0	11 0		9 0	8 0	12 0	11 0
	9 0	8 0	10 3	9 3		9 0	8 0	10 9	9 8
	9 0	8 0	10 0	9 0		9 0	8 0	10 6	9 5
	9 3	8 3	10 9	9 8		9 3	8 3	11 3	10 3
	9 0	8 0	11 9	10 8		9 3	8 3	12 0	11 0
	9 3	8 3	12 6	11 5		9 3	8 3	12 6	11 5
	9 3	8 3	12 3	11 3		9 3	8 3	12 0	11 0
	9 3	8 3	11 6	10 5		9 3	8 3	11 6	10 5
	9 6	8 5	11 0	10 0		9 6	8 5	11 3	10 3
	9 6	8 5	10 6	9 5		9 6	8 5	10 6	9 5
	9 9	8 8	10 3	9 3		9 6	8 5	10 3	9 3
	9 9	8 8	11 0	10 0		9 9	8 8	10 6	9 5
	10 0	9 0	12 0	11 0		10 0	9 0	12 6	11 5
	9 9	8 8	11 9	10 8		9 9	8 8	13 6	12 5
	10 0	9 0	11 0	10 0		10 0	9 0	12 0	11 0
	10 0	9 0	11 0	10 0		10 0	9 0	11 0	10 0
	10 0	9 0	11 3	10 3		10 0	9 0	11 0	10 0
	10 0	9 0	10 6	9 5		10 0	9 0	10 6	9 5
	9 0	8 0	10 0	9 0		9 3	8 3	10 0	9 0
			9 3	8 3				9 3	8 3

6' 2"

6' 2"

520' South.

540' South.

Shore	6' 3"	5' 3"	9' 3"	8' 3"	Shore	7' 0"	6' 0"	9' 3"	8' 3"
	6 6	5 5	9 0	8 0		6 3	5 3	8 6	7 5
	6 3	5 3	8 6	7 5		6 3	5 3	8 3	7 3
	6 6	5 5	8 6	7 5		7 0	6 0	8 3	7 3
	7 3	6 3	9 3	8 3		7 3	6 3	8 3	7 3
	8 0	7 0	8 6	7 5		8 3	7 3	8 3	7 3
	8 6	7 5	8 9	7 8		8 9	7 8	8 6	7 5
	8 6	7 5	9 0	8 0		8 9	7 8	9 0	8 0
	8 9	7 8	9 3	8 3		9 0	8 0	9 3	8 3
	9 0	8 0	10 3	9 3		9 0	8 0	10 0	9 0
	9 0	8 0	11 3	10 3		9 0	8 0	11 3	10 3
	9 0	8 0	11 6	10 5		9 0	8 0	12 0	11 0
	9 0	8 0	12 0	11 0		9 3	8 3	13 0	12 0
	9 0	8 0	11 9	10 8		9 3	8 3	12 6	11 5
	9 3	8 3	12 3	11 3		9 3	8 3	12 9	11 8
	9 6	8 5	13 0	12 0		9 6	8 5	13 0	12 0
	9 6	8 5	12 3	11 3		9 6	8 3	12 3	11 3
	9 6	8 5	11 9	10 8		9 9	8 8	12 0	11 0
	9 6	8 5	11 6	10 5		9 6	8 5	12 0	11 0
	9 9	8 8	11 9	10 8		9 3	8 5	12 3	11 3
	9 9	8 8	11 3	10 3		9 6	8 5	12 0	11 0
	9 9	8 8	10 6	9 5		10 0	9 0	11 0	10 0
	10 0	9 0	10 6	9 5		10 0	9 0	11 0	10 0
	10 0	9 0	12 0	11 0		9 6	8 5	12 0	11 0
	10 3	9 3	12 6	11 5		10 3	9 3	12 9	11 8
	10 0	9 0	11 6	10 5		10 0	9 0	12 0	11 0
	10 0	9 0	10 0	9 0		10 3	9 3	10 6	9 5
	10 3	9 3	11 3	10 3		10 3	9 3	11 6	10 5
	10 0	9 0	10 6	9 5		10 0	9 0	11 3	10 3
	9 6	8 5	10 0	9 0		9 6	8 5	10 6	9 5
			9 6	8 5				10 0	9 0

Exhibit 2.

6' 2"

560' south.

Shore	6' 3"	5' 3"	8' 6"	7' 5"
	7 3	6 3	8 0	7 0
	7 3	6 3	7 9	6 8
	7 9	6 8	7 9	6 8
	7 9	6 8	7 6	6 5
	8 3	7 3	7 9	6 8
	8 6	7 5	8 0	7 0
	8 6	7 5	8 6	7 5
	8 9	7 8	9 0	8 0
	9 0	8 0	10 0	9 0
	9 0	8 0	10 0	9 0
	9 0	8 0	12 3	11 3
	9 3	8 3	12 0	10 0
	9 3	8 3	11 9	10 8
	9 3	8 3	12 3	11 3
	9 3	8 3	12 3	11 3
	9 3	8 3	11 9	10 8
	8 9	7 8	11 9	10 8
	9 6	8 5	12 6	11 5
	9 6	8 5	12 9	11 8
	9 9	8 8	12 3	11 3
	10 0	9 0	11 3	10 3
	10 0	9 0	11 3	10 3
	10 0	9 0	12 0	11 0
	10 0	9 0	12 9	11 8
	10 0	9 0	12 3	11 3
	10 0	9 0	11 9	10 8
	10 0	9 0	12 0	11 0
	9 6	8 5	11 9	10 8
	9 0	8 0	11 3	10 3
			10 0	9 0

6' 2"

580' south.

Shore	8' 9"	7' 8"	8' 3"	7' 3"
	10 0	9 0	8 0	7 0
	9 3	8 3	7 9	6 8
	8 0	7 0	7 6	6 5
	8 0	7 0	7 3	6 3
	8 0	7 0	7 9	6 8
	8 6	7 5	8 3	7 3
	8 9	7 8	8 9	7 8
	9 0	8 0	9 3	8 3
	9 0	8 0	10 0	9 0
	9 0	8 0	11 9	10 8
	9 3	8 3	12 6	11 5
	9 3	8 3	12 0	11 0
	9 3	8 3	11 3	10 3
	9 6	8 5	11 6	10 5
	9 6	8 5	12 3	11 3
	8 9	7 8	11 9	10 8
	9 6	8 5	11 9	10 8
	9 9	8 8	12 0	11 0
	8 6	7 5	12 0	11 0
	9 3	8 3	12 3	11 3
	10 0	9 0	11 9	10 8
	9 9	8 8	12 0	11 0
	10 0	9 0	12 6	11 5
	10 0	9 0	12 3	11 3
	10 0	9 0	12 0	11 0
	9 9	8 8	12 0	10 8
	9 3	8 3	11 9	10 3
	9 0	8 0	11 3	9 0
			10 0	

6' 2"

600' south.

Shore	10' 3"	9' 3"	8' 3"	7' 3"
10 0	9 0	7 9	6 8	
9 6	8 5	7 9	6 8	
8 9	7 8	8 0	7 0	
8 0	7 0	8 3	7 3	
8 6	7 5	8 3	7 3	
8 6	7 5	9 0	8 0	
8 9	7 8	10 0	10 0	
9 0	8 0	10 3	9 3	
9 0	8 0	10 9	9 8	
9 0	8 0	12 0	11 0	
9 6	8 5	12 9	11 8	
9 3	8 3	11 9	10 8	
9 6	8 5	11 0	10 0	
9 6	8 5	11 0	10 0	
9 9	8 8	12 0	11 0	
9 6	8 5	12 3	11 3	
9 9	8 8	12 0	11 0	
9 9	8 8	13 0	12 0	
9 9	8 8	12 6	11 5	
8 6	7 5	11 9	10 8	
10 0	9 0	12 3	11 3	
10 0	9 0	12 6	11 5	
9 9	8 8	13 0	12 0	
10 3	9 3	12 6	11 5	
10 3	9 3	12 3	11 3	
10 0	9 0	12 3	11 3	
9 9	8 8	12 0	11 0	
9 3	8 3	11 6	10 5	
8 6	8 5	10 6	9 5	
		10 0	9 0	

6' 2"

620' south.

Exhibit 2.

Shore	8' 3"	7' 3"	8' 0"	7' 0"
9 0	8 0	8 0	7 0	
9 0	8 0	8 9	7 8	
8 6	7 5	10 0	9 0	
8 3	7 3	10 0	9 0	
8 6	7 5	10 9	9 8	
9 0	8 0	11 9	10 8	
9 0	8 0	13 6	12 5	
9 0	8 0	11 3	10 3	
8 9	7 8	11 6	10 5	
9 0	8 0	12 3	11 3	
9 3	8 3	12 6	11 5	
9 3	8 3	11 3	10 3	
9 3	8 3	10 9	9 8	
9 6	8 5	11 0	10 0	
9 9	8 8	12 0	11 0	
9 9	8 8	12 6	11 5	
9 9	8 8	12 6	11 5	
9 9	8 8	13 9	12 8	
10 0	9 0	12 3	11 3	
10 0	9 0	11 9	10 8	
8 0	7 0	12 3	11 3	
10 0	9 0	13 0	12 0	
10 0	9 0	13 0	12 0	
10 3	9 3	12 6	11 5	
10 3	9 3	12 3	11 3	
10 0	9 0	12 0	11 0	
9 9	8 8	12 0	11 0	
9 0	8 0	11 6	10 5	
8 6	7 5	11 6	10 5	
		10 0	9 0	

6' 2"					6' 2"				
Exhibit 2.									
640' south.					660' south.				
Shore	6' 0"	5' 0"	7' 9"	6' 8"	Shore	5' 3"	4' 3"	5' 0"	7' 0"
	5 3	4 3	8 3	7 3		5 3	4 3	8 6	7 5
	7 0	6 0	11 0	10 0		7 0	6 0	11 0	10 0
	8 3	7 3	12 0	11 0		8 3	7 3	10 9	9 8
	8 6	7 5	12 3	11 3		8 6	7 5	10 6	9 5
	8 6	7 5	13 3	12 3		8 9	7 8	11 6	10 5
	8 6	7 5	13 3	12 3		9 0	8 0	13 3	12 3
	8 9	7 8	12 6	11 5		9 0	8 0	10 9	9 8
	9 0	8 0	11 0	10 0		9 3	8 3	10 6	9 5
	9 0	8 0	13 6	12 5		9 3	8 3	14 3	13 3
	9 3	8 3	12 6	11 5		9 3	8 3	13 3	12 3
	9 3	8 3	12 6	11 5		9 6	8 5	12 9	11 8
	8 9	7 8	16 6	10 5		9 6	8 5	11 9	10 8
	9 9	8 8	10 9	9 8		9 6	8 5	11 0	10 0
	9 6	8 5	11 3	10 3		9 6	8 5	11 0	10 3
	9 9	8 8	12 3	11 3		9 9	8 8	12 9	11 8
	9 9	8 8	12 6	11 5		9 9	8 8	12 3	11 3
	9 9	8 8	12 6	11 5		9 9	8 8	12 3	11 3
	9 9	8 8	13 9	12 8		10 0	9 0	13 3	12 3
	10 0	9 0	12 3	11 3		10 3	9 3	12 3	11 3
	10 0	9 0	12 0	11 0		10 0	9 0	12 3	11 3
	10 0	9 0	12 6	11 5		10 0	9 0	12 6	11 5
	10 0	9 0	12 9	11 8		10 0	9 0	13 0	12 0
	7 6	6 5	12 6	11 5		10 3	9 3	13 0	12 0
	10 0	9 0	12 6	11 5		10 3	9 3	12 9	11 8
	10 0	9 0	12 0	11 0		10 3	9 3	11 9	10 8
	9 9	8 8	11 9	10 8		9 9	8 8	11 3	10 3
	9 3	8 3	11 9	10 8		9 3	8 3	11 0	10 0
	8 9	7 8	11 9	10 8		8 9	7 8	11 9	10 8
	8 3	7 3	11 0	10 0		8 3	7 3	11 6	10 5
			10 3	9 3				10 3	9 3

6' 2"

6' 2"

Exhibit 2.

680 feet south.

700 feet south.

Shore	6' 0"	5' 0"	8' 0"	7' 0"	Shore	6' 6"	5' 5"	8' 0"	7' 0"
	6 0	5 0	10 6	9 5		6 6	5 5	8 3	7 3
	6 9	5 8	12 3	11 3		6 3	5 3	9 6	8 5
	7 9	6 8	12 3	11 3		7 9	6 8	10 3	9 3
	8 6	7 5	12 0	11 0		8 3	7 3	10 3	9 3
	7 9	6 8	12 9	11 8		8 6	7 5	13 6	12 5
	8 9	7 8	12 0	11 0		8 9	7 8	10 6	9 5
	9 0	8 0	9 3	8 3		9 0	8 0	9 0	8 0
	9 3	8 3	10 0	9 0		9 3	8 3	9 9	8 8
	9 3	8 3	13 6	12 5		9 6	8 5	14 0	13 0
	9 3	8 3	14 3	13 3		9 3	8 3	14 3	13 3
	9 6	8 5	12 6	11 5		9 6	8 5	12 3	11 3
	9 6	8 5	12 0	11 0		9 6	8 5	12 6	11 5
	9 9	8 8	11 0	10 0		9 3	8 3	11 0	10 0
	9 9	8 8	11 0	10 0		9 9	8 8	11 0	10 0
	9 9	8 8	12 3	11 3		10 0	9 0	12 6	11 5
	10 0	9 0	11 9	10 8		10 0	9 0	12 0	11 0
	10 0	9 0	11 9	10 8		10 0	9 0	12 0	11 0
	10 0	9 0	13 0	12 0		10 3	9 3	13 3	12 3
	10 3	9 3	12 6	11 5		10 3	9 3	12 3	11 3
	9 9	8 8	12 0	11 0		10 3	9 3	9 9	8 8
	10 3	9 3	12 0	11 0		10 6	9 5	9 6	8 5
	10 3	9 3	12 0	11 0		10 3	9 3	10 3	9 3
	10 3	9 3	12 3	11 3		10 6	9 5	11 3	10 3
	10 3	9 3	12 0	11 0		10 3	9 3	11 6	10 5
	10 3	9 3	11 0	10 0		10 0	9 0	11 0	10 0
	9 9	8 8	10 9	9 8		9 9	8 8	10 6	9 5
	9 3	8 3	11 0	10 0		9 3	8 3	10 6	9 5
	8 6	7 5	11 3	10 3		8 6	7 5	11 6	10 5
	8 0	7 0	11 3	10 3		8 0	7 0	12 0	11 0
			10 6	9 5				11 6	10 5

Exhibit 2.

6' 2"

6' 2"

720 feet south.

740 feet south.

Shore	7' 3"	6' 3"	7' 9"	6' 8"	Shore	7' 9"	6' 8"	8' 0"	7' 0"
	7 0	6 0	7 6	6 5		7 6	6 5	8 0	7 0
	4 0	3 0	8 3	7 3		7 0	6 0	8 9	7 8
	6 0	5 0	11 0	10 0		7 0	6 0	11 0	10 0
	8 0	7 0	12 6	11 5		8 6	7 5	12 0	11 0
	8 6	7 5	13 0	12 0		8 6	7 5	11 0	10 0
	9 0	8 0	10 3	9 3		8 9	7 8	8 6	7 5
	8 6	3 5	8 9	7 8		9 0	8 0	8 6	7 5
	9 3	8 3	9 6	8 5		9 3	8 3	9 3	8 3
	9 3	8 3	14 3	13 3		9 6	8 5	12 0	11 0
	9 3	8 3	13 3	12 8		9 3	8 3	13 0	12 0
	9 6	8 5	12 3	11 3		9 6	8 5	11 6	10 5
	9 6	8 5	12 6	11 5		9 9	8 8	12 0	11 0
	9 6	8 5	11 0	10 0		9 6	8 5	11 9	10 8
	9 9	8 8	11 0	10 0		9 9	8 8	12 0	11 0
	9 9	8 8	12 6	11 5		10 0	9 0	13 3	12 3
	10 0	9 0	12 6	11 5		10 0	9 0	12 0	11 0
	10 0	9 0	13 0	12 0		10 0	9 0	12 0	11 0
	10 0	9 0	12 6	11 5		10 0	9 0	11 6	10 5
	10 0	9 0	11 6	10 5		10 3	9 3	11 0	10 0
	10 0	9 0	11 6	10 5		10 3	9 3	11 6	10 5
	10 0	9 0	11 3	10 3		10 3	9 3	11 6	10 5
	10 0	9 0	10 9	9 8		10 3	9 3	11 3	10 3
	10 0	9 0	11 0	10 0		10 3	9 3	11 0	10 0
	10 0	9 0	11 3	10 3		10 0	9 0	11 0	10 0
	10 0	9 0	10 6	9 5		10 0	9 0	10 6	9 5
	9 6	8 5	10 0	9 0		9 6	8 5	9 6	8 5
	9 0	8 0	10 0	9 0		9 3	8 3	9 9	8 8
	8 6	7 5	11 0	10 0		8 9	7 8	10 6	9 5
	8 0	7 0	12 0	11 0		8 3	7 3	11 6	10 5
			11 6	10 5				12 0	11 0

6' 2"

6' 2"

Exhibit 2.

760 feet south.

780 feet south.

Shore	7' 9"	6' 8"	8' 3"	7' 3"
	7' 9"	6' 8"	8' 3"	7' 3"
	7' 9"	6' 8"	9' 9"	8' 8"
	5' 6"	4' 5"	12' 3"	11' 3"
	8' 6"	7' 5"	12' 6"	11' 5"
	8' 9"	7' 8"	11' 6"	10' 5"
	9' 0"	8' 0"	9' 3"	8' 3"
	8' 9"	7' 8"	8' 6"	7' 5"
	9' 3"	8' 3"	9' 6"	8' 5"
	9' 9"	8' 8"	12' 6"	11' 5"
	9' 9"	8' 8"	13' 6"	12' 5"
	9' 6"	8' 5"	12' 0"	11' 0"
	9' 9"	8' 8"	12' 6"	11' 5"
	9' 9"	8' 8"	11' 9"	10' 8"
	10' 0"	9' 0"	10' 9"	9' 8"
	10' 0"	9' 0"	13' 0"	12' 0"
	10' 0"	9' 0"	12' 6"	11' 5"
	10' 0"	9' 0"	12' 3"	11' 3"
	10' 3"	9' 3"	11' 0"	10' 0"
	10' 3"	9' 3"	11' 0"	10' 0"
	10' 3"	9' 3"	11' 9"	10' 8"
	10' 3"	9' 3"	11' 6"	10' 5"
	10' 3"	9' 3"	10' 9"	9' 8"
	10' 3"	9' 3"	11' 0"	10' 0"
	10' 0"	9' 0"	11' 0"	10' 0"
	9' 9"	8' 8"	10' 0"	9' 0"
	9' 9"	8' 8"	9' 3"	8' 3"
	9' 3"	8' 3"	9' 3"	8' 3"
	9' 0"	8' 0"	10' 0"	9' 0"
	8' 6"	7' 5"	11' 3"	10' 3"
			11' 9"	10' 8"

Shore	8' 3"	7' 3"	8' 9"	7' 8"
	8' 3"	7' 3"	9' 6"	8' 5"
	8' 3"	7' 3"	12' 3"	11' 3"
	6' 0"	5' 0"	10' 6"	9' 5"
	8' 3"	7' 3"	10' 6"	9' 5"
	8' 6"	7' 5"	13' 0"	12' 0"
	8' 9"	7' 8"	10' 9"	9' 8"
	8' 3"	7' 3"	9' 0"	8' 0"
	9' 3"	8' 3"	10' 3"	9' 3"
	9' 9"	8' 8"	10' 9"	9' 8"
	9' 9"	8' 8"	11' 0"	10' 0"
	9' 9"	8' 8"	10' 6"	9' 5"
	10' 0"	9' 0"	12' 9"	11' 8"
	10' 0"	9' 0"	11' 9"	10' 9"
	10' 0"	9' 0"	11' 0"	10' 0"
	10' 0"	9' 0"	12' 3"	11' 3"
	10' 3"	9' 3"	11' 9"	10' 9"
	10' 3"	9' 3"	11' 0"	10' 0"
	10' 3"	9' 3"	10' 3"	9' 3"
	10' 3"	9' 3"	10' 9"	9' 8"
	10' 3"	9' 3"	11' 6"	10' 5"
	10' 3"	9' 3"	11' 3"	10' 3"
	10' 6"	9' 5"	10' 6"	9' 5"
	10' 3"	9' 3"	11' 0"	10' 0"
	10' 0"	9' 0"	11' 0"	10' 0"
	10' 0"	9' 0"	10' 3"	9' 3"
	9' 9"	8' 8"	9' 3"	8' 3"
	9' 6"	8' 5"	9' 3"	8' 3"
	9' 3"	8' 3"	9' 9"	8' 8"
	9' 0"	8' 0"	10' 9"	9' 8"
			11' 9"	10' 8"

6' 2"					6' 2"				
Exhibit 2. 800 feet south.					820 feet south.				
Shore	9' 0"	8' 0"	9' 6"	8' 5"	Shore	9' 6"	8' 5"	10' 0"	9' 0"
	9 6	8 5	11 0	10 0		9 9	8 8	11 3	10 3
	8 6	7 5	13 3	12 3		9 0	8 0	12 3	11 3
	6 9	5 8	11 9	10 8		7 0	6 0	12 3	11 3
	8 6	7 5	11 6	10 5		9 0	8 0	13 9	12 8
	9 0	8 0	13 3	12 3		9 0	8 0	11 6	10 5
	8 3	7 3	12 6	11 5		9 3	8 3	12 6	11 5
	8 3	7 3	10 3	9 3		9 0	8 0	12 6	11 5
	10 0	9 0	11 3	10 3		9 6	8 5	13 0	12 0
	10 0	9 0	13 6	12 5		10 3	9 3	13 6	12 5
	10 0	9 0	11 0	10 0		10 0	9 0	10 0	9 0
	10 0	9 0	10 0	9 0		10 3	9 3	10 0	9 0
	10 3	9 3	11 9	10 8		10 6	9 5	11 6	10 5
	10 3	9 3	11 0	10 0		10 6	9 5	10 0	9 0
	10 3	9 3	10 0	9 0		10 3	9 3	9 3	8 3
	10 3	9 3	10 0	9 0		10 6	9 5	9 3	8 3
	10 3	9 3	11 3	10 3		10 6	9 5	10 0	9 0
	10 6	9 5	10 6	9 5		10 9	9 8	9 6	8 5
	10 6	9 5	10 3	9 3		10 9	9 8	9 6	8 5
	10 6	9 5	10 3	9 3		10 9	9 8	10 3	9 3
	10 6	9 5	11 3	10 3		10 9	9 8	10 3	9 3
	10 6	9 5	11 3	10 3		10 9	9 8	10 3	9 3
	10 6	9 5	10 9	9 8		10 9	9 8	10 3	9 3
	10 6	9 5	11 0	10 0		10 6	9 5	11 0	10 0
	10 3	9 3	11 3	10 3		10 3	9 3	11 6	10 5
	10 0	9 0	10 3	9 3		10 0	9 0	11 3	10 3
	9 9	8 8	9 6	8 5		10 0	9 0	9 3	8 3
	9 9	8 8	9 3	8 3		9 9	8 8	9 0	8 0
	9 9	8 8	9 3	8 3		10 0	9 0	9 3	8 3
	9 6	8 5	10 0	9 0		9 3	8 3	9 9	8 8
			11 0	10 0				10 6	9 5

Soundings of February, 1872.

989

6' 2"

6' 2"

840 feet south.

860 feet south.

Exhibit 2

Shore	8' 9"	7' 8"	9' 9"	8' 8"	Shore	9' 6"	8' 0"	9' 9"	8' 8"
	9 9	8 8	10 0	9 0		9 3	8 3	10 0	9 0
	9 6	8 5	12 6	11 5		9 0	8 0	10 0	9 0
	7 6	6 5	11 0	10 0		6 9	5 8	11 9	10 8
	9 3	8 3	12 3	11 3		8 3	7 3	10 9	9 8
	9 3	8 3	13 0	12 0		9 6	8 5	12 6	11 5
	9 6	8 5	10 0	9 0		8 6	7 5	10 0	9 0
	9 6	8 5	10 0	9 0		10 0	9 0	9 9	8 8
	10 3	9 3	12 0	11 0		10 3	9 3	12 0	11 0
	10 3	9 3	13 0	12 0		10 3	9 3	11 0	10 0
	10 3	9 3	11 6	10 5		10 3	9 3	10 0	9 0
	10 3	9 3	9 3	8 3		9 9	8 8	10 0	9 0
	10 3	9 3	10 0	9 0		10 6	9 5	11 6	10 5
	10 3	9 3	10 0	9 0		10 6	9 5	10 3	9 3
	10 6	9 5	9 3	8 3		10 6	9 5	9 9	8 8
	10 6	9 5	9 0	8 0		10 9	9 8	9 0	8 0
	10 6	9 5	9 0	8 0		10 3	9 3	8 0	7 0
	10 6	9 5	8 0	7 0		10 3	9 3	9 6	8 5
	10 6	9 5	9 9	8 8		10 3	9 3	9 0	8 0
	10 6	9 5	9 6	8 5		10 9	9 8	9 0	8 0
	10 6	9 5	9 9	8 8		10 9	9 8	10 0	9 0
	10 6	9 5	9 9	8 8		10 9	9 8	11 9	10 8
	10 6	9 5	10 0	9 0		10 6	9 5	14 3	13 3
	10 3	9 3	10 0	9 0		10 3	9 3	11 3	10 3
	10 0	9 0	10 6	9 5		10 0	9 0	10 3	9 3
	9 9	8 8	11 6	10 5		9 9	8 8	10 0	9 0
	9 9	8 8	10 6	9 5		9 9	8 8	10 0	9 0
	9 6	8 5	9 6	8 5		9 6	8 5	9 8	8 7
	9 6	8 5	9 0	8 0		9 3	8 3	9 0	8 0
	9 9	8 8	9 0	8 0		9 6	8 5	9 0	8 0
			9 3	8 3				9 0	8 0

Exhibit 2.

6' 2"

880 feet south.

Shore	8' 0"	7' 0"	10' 0"	9' 0"
	8 0	7 0	11 6	10 5
	8 0	7 0	12 3	11 3
	8 9	7 8	12 0	11 0
	9 3	8 3	12 0	11 0
	9 3	8 3	11 6	10 5
	9 9	8 8	14 0	13 0
	10 0	9 0	10 6	9 5
	10 3	9 3	13 0	12 0
	10 3	9 3	9 0	8 0
	10 3	9 3	11 0	10 0
	10 3	9 3	11 0	10 0
	10 3	9 3	10 6	9 5
	10 6	9 5	10 0	9 0
	10 3	9 3	10 9	9 8
	10 3	9 3	11 0	10 0
	10 9	9 8	11 0	10 0
	10 9	9 8	10 3	9 3
	10 9	9 8	8 3	7 3
	10 9	9 8	9 3	8 3
	10 9	9 8	10 6	9 5
	10 6	9 5	10 6	9 5
	10 3	9 3	9 9	8 8
	10 0	9 0	10 0	9 0
	9 9	8 8	11 3	10 3
	9 3	8 3	10 6	9 5
	9 3	8 3	9 3	8 3
	9 3	8 3	9 0	8 0
	9 9	8 8	8 9	7 8
	9 9	8 8	9 0	8 0
			9 9	8 8

6' 2"

900 feet south.

Shore	7' 0"	6' 0"	9' 9"	8' 8"
	7 0	6 0	10 0	9 0
	7 3	6 3	13 0	12 0
	8 6	7 5	15 0	14 0
	9 0	8 0	12 6	11 5
	9 6	8 5	11 3	10 3
	9 9	8 8	13 3	12 3
	10 0	9 0	12 0	11 0
	10 0	9 0	12 6	11 5
	10 0	9 0	9 3	8 3
	10 0	9 0	11 9	10 8
		9 3	13 6	12 5
	10 3	9 3	13 0	12 0
	10 3	7 8	13 3	12 3
	8 9	9 5	10 0	9 0
	10 6	9 5	10 0	9 0
	10 6	9 5	11 0	10 0
	10 6	9 5	10 9	9 8
	10 6	9 5	9 6	8 5
	10 6	9 5	8 6	7 5
	10 6	9 5	8 9	7 8
	10 6	9 5	9 0	8 0
	10 6	9 0	9 6	8 5
	10 0	9 0	10 3	9 3
	10 0	8 5	11 0	10 0
	9 6	8 0	9 0	8 0
	9 0	8 0	9 0	8 0
	9 0	8 0	8 9	7 8
	9 0	8 5	8 9	7 8
	9 6	8 5	9 0	8 0
	9 6		9 6	8 5

6' 2"

6' 2"

920 feet south.

940 feet south.

Shore	7' 0"	6' 0"	9' 6"	8' 5"
	7 3	6 3	9 3	8 3
	7 3	6 3	10 9	9 8
	8 6	7 5	15 3	14 3
	9 0	8 0	14 6	13 5
	9 9	8 8	11 0	10 0
	10 0	9 0	14 3	13 3
	10 0	9 0	12 6	11 5
	10 3	9 3	11 9	10 8
	10 6	9 5	9 6	8 5
	10 6	9 5	10 0	9 0
	10 6	9 5	13 0	12 0
	10 6	9 5	10 6	11 5
	10 9	9 8	10 9	9 8
	10 6	9 5	12 0	11 0
	10 9	9 8	9 0	8 0
	10 9	9 8	8 3	7 3
	10 9	9 8	9 3	8 3
	10 9	9 8	9 3	8 3
	10 9	9 8	8 3	7 3
	10 6	9 5	8 3	7 3
	10 6	9 5	8 6	7 5
	10 0	9 0	9 0	8 0
	9 6	8 5	9 9	8 8
	9 0	8 0	10 3	9 3
	9 0	8 0	10 0	9 0
	9 0	8 0	9 3	8 3
	9 3	8 3	8 9	7 8
	9 3	8 3	8 6	7 5
	9 3	8 3	8 6	7 5
			9 3	8 3

Shore	8' 6"	7' 5"	9' 3"	8' 3"
	10 6	9 5	9 9	8 8
	7 3	6 3	14 0	13 0
	8 3	7 3	15 0	14 0
	9 0	8 0	11 0	10 0
	9 9	8 8	10 0	9 0
	10 0	9 0	12 6	11 5
	10 0	9 0	12 0	11 0
	10 3	9 3	11 3	10 3
	10 3	9 3	8 9	7 8
	10 6	9 5	10 3	9 3
	10 3	9 3	10 6	9 5
	9 9	8 8	9 0	8 0
	10 9	9 8	10 3	9 3
	11 0	10 0	13 3	12 3
	11 0	10 0	9 0	8 0
	11 0	10 0	7 9	6 8
	11 0	10 0	7 9	6 8
	10 9	9 8	8 0	7 0
	10 9	9 8	8 3	7 3
	10 6	9 5	8 3	7 3
	10 3	9 3	8 6	7 5
	9 9	8 8	9 3	8 3
	9 3	8 3	9 9	8 8
	8 9	7 8	10 0	9 0
	8 6	7 5	9 6	8 5
	8 6	7 5	9 0	8 0
	9 0	8 0	8 6	7 5
	9 3	8 3	8 3	7 3
	9 3	8 3	8 6	7 5
			9 0	8 0

6' 2"

6' 2"

Exhibit 2.

960 feet south.

980 feet south.

Shore	9' 6"	8' 5"	10' 0"	9' 0"	Shore	10' 0"	9' 0"	10' 0"	9' 0"
	10 6	9 5	14 6	13 5		10 0	9 0	14 0	13 0
	6 6	5 5	16 0	15 0		5 3	4 3	18 6	17 5
	9 0	8 0	11 0	10 0		8 0	7 0	12 0	11 0
	9 6	8 5	9 3	8 3		9 9	8 8	10 3	9 3
	10 0	9 0	13 0	12 0		10 0	9 0	9 6	8 5
	10 3	9 3	12 6	11 5		10 0	9 0	12 0	11 0
	9 9	8 8	11 0	10 0		10 3	9 3	12 0	11 0
	10 3	9 3	8 6	7 5		10 6	9 5	9 6	8 5
	10 6	9 5	10 3	9 3		10 6	9 5	9 0	8 0
	10 6	9 5	9 6	8 5		10 6	9 5	12 0	11 0
	10 9	9 8	8 6	7 5		10 9	9 8	9 9	8 8
	10 9	9 8	10 3	9 3		11 0	10 0	8 0	7 0
	10 9	9 8	9 9	8 8		11 0	10 0	11 0	10 0
	10 9	9 8	8 3	7 3		10 9	9 8	12 0	11 0
	10 0	9 0	7 9	6 8		10 9	9 8	8 3	7 3
	10 9	9 8	7 9	6 8		10 9	9 8	7 6	6 5
	10 9	9 8	7 6	6 5		11 0	10 0	7 9	6 8
	10 9	9 8	7 9	6 8		10 9	9 8	7 9	6 8
	9 9	8 8	8 0	7 0		10 9	9 8	6 0	5 0
	10 3	9 3	8 0	7 0		10 3	9 3	8 0	7 0
	9 9	8 8	8 6	7 5		10 0	9 0	8 3	7 3
	9 0	8 0	9 3	8 3		10 0	9 0	9 0	8 0
	8 9	7 8	9 9	8 8		13 0	12 0	11 6	10 5
	8 6	7 5	9 3	8 3		8 6	7 5	10 6	9 5
	8 6	7 5	9 3	8 3		8 6	7 5	9 0	8 0
	8 6	7 5	9 6	8 5		8 3	7 3	8 6	7 5
	9 0	8 0	8 6	7 5		8 3	7 3	8 6	7 5
	9 6	8 5	8 6	7 5		9 0	8 0	8 3	7 3
	9 6	8 5	8 6	7 5		9 3	8 3	8 6	7 5
			9 0	8 0				9 0	8 0

6' 2"

1000 feet south.

Shore	11' 6"	10' 5"	13' 3"	12' 3"
	11 9	10 8	13 9	12 8
	8 6	7 5	13 0	12 0
	7 0	6 0	11 9	10 8
	8 3	7 3	9 6	8 5
	10 0	9 0	9 0	8 0
	10 3	9 3	10 9	9 8
	10 6	9 5	12 3	11 3
	10 6	9 5	9 9	8 8
	10 9	9 8	10 3	9 3
	10 9	9 8	12 3	11 3
	11 0	10 0	8 6	7 5
	9 6	8 5	8 0	7 0
	11 0	10 0	11 0	10 0
	11 0	10 0	11 3	10 3
	11 3	10 3	8 6	7 5
	11 3	10 3	7 6	6 5
	11 0	10 0	7 9	6 8
	11 0	10 0	7 9	6 8
	10 9	9 8	8 0	7 0
	10 3	9 3	8 3	7 3
	9 6	8 5	8 6	7 5
	13 9	12 0	11 3	10 3
	11 0	10 0	12 6	11 5
	10 0	9 0	9 3	8 3
	13 0	12 0	8 6	7 5
	10 0	9 0	8 3	7 3
	8 3	7 3	8 3	7 3
	9 0	8 0	8 6	7 5
	10 6	9 5	9 0	8 0
			9 6	8 5

6' 2"

1020 feet south.

Exhibit 2.

Shore	10' 6"	9' 5"	14' 0"	13' 0"
	11 6	10 5	13 6	12 5
	7 6	6 5	11 6	10 5
	6 6	5 5	11 3	10 3
	8 6	7 5	11 0	10 0
	10 3	9 3	9 0	8 0
	10 3	9 3	10 3	9 3
	10 6	9 5	13 3	12 3
	10 6	9 5	11 0	10 0
	10 9	9 8	11 3	10 3
	11 0	10 0	10 9	9 8
	11 0	10 0	8 3	7 3
	11 0	10 0	7 6	6 5
	11 3	10 3	8 6	7 5
	11 0	10 0	12 6	11 5
	11 0	10 0	9 9	8 8
	11 3	10 3	8 0	7 0
	11 3	10 3	7 9	7 8
	10 9	9 8	7 6	6 5
	10 6	9 5	7 9	6 8
	10 0	9 0	8 0	7 0
	9 3	8 3	8 3	7 3
	11 3	10 3	10 3	9 3
	11 0	10 0	14 0	13 0
	13 3	12 3	10 0	9 0
	14 6	13 5	8 6	7 5
	10 0	9 0	8 3	7 3
	8 3	7 3	8 6	7 5
	9 3	8 3	8 6	7 5
	13 6	12 5	9 0	8 0
			9 6	8 5

6' 2"					6' 2"				
Exhibit 2.									
1040 feet south.					1060 feet south.				
Shore	11' 0"	10' 0"	14' 6"	13' 5"	Shore	11' 0"	10' 0"	12' 0"	11' 0"
	11 6	10 5	13 6	12 5		11 3	10 3	12 0	11 0
	7 9	6 8	10 3	9 3		6 9	5 8	10 0	9 0
	7 6	6 5	10 9	9 8		6 9	5 8	11 0	10 0
	9 6	8 5	12 9	11 8		9 0	8 0	12 0	11 0
	10 6	9 5	10 0	9 0		10 3	9 3	10 9	9 8
	10 6	9 5	11 6	10 5		10 6	9 5	11 6	10 5
	10 9	9 8	11 0	10 0		11 0	10 0	11 0	10 0
	10 9	9 8	9 3	8 3		11 0	10 0	8 0	7 0
	10 9	9 8	8 6	7 5		11 0	10 0	7 3	6 3
	11 0	10 0	8 0	7 0		11 3	10 3	7 3	6 3
	11 0	10 0	7 6	6 5		11 0	10 0	7 3	6 3
	11 0	10 0	7 3	6 3		11 3	10 3	7 3	6 3
	11 0	10 0	8 3	7 3		11 0	10 0	8 0	7 0
	11 0	10 0	11 9	10 8		7 3	6 3	11 0	10 0
	11 0	10 0	10 9	9 8		11 0	10 0	10 0	9 0
	11 0	10 0	8 0	7 0		11 0	10 0	8 0	7 0
	10 9	9 8	7 6	6 5		11 0	10 0	7 6	6 5
	10 6	9 5	7 6	6 5		10 6	9 5	7 6	6 5
	10 0	9 0	7 9	6 8		9 9	8 8	7 6	6 5
	9 3	8 3	7 9	6 8		9 0	8 0	7 9	6 8
	8 9	7 8	8 0	7 0		8 9	7 8	8 6	7 5
	8 0	7 0	10 0	9 0		8 9	7 8	12 0	11 0
	9 0	8 0	12 6	11 5		7 6	6 5	13 0	12 0
	14 0	13 0	9 3	8 3		8 6	7 5	10 0	9 0
	11 6	10 5	8 3	7 3		8 6	7 5	9 0	8 0
	8 0	7 0	8 0	7 0		8 6	7 5	8 0	7 0
	8 3	7 3	8 3	7 3		8 3	7 3	8 3	7 3
	9 3	8 3	8 6	7 5		9 0	8 0	8 6	7 5
	13 6	12 5	9 0	8 0		13 6	12 5	9 0	8 0
			9 6	8 5				9 6	8 5

6' 2"

6' 2"

Exhibit 2.

1080 feet south.

1100 feet south.

Shore	9' 6"	8' 5"	14' 6"	13' 5"
	9 9	8 8	12 0	11 0
	7 0	6 0	9 6	8 5
	6 3	5 3	10 0	9 0
	9 6	8 5	12 9	11 8
	10 3	9 3	10 6	9 5
	10 3	9 3	12 0	11 0
	11 0	10 0	10 0	9 0
	11 0	10 0	7 6	6 5
	11 0	10 0	7 0	6 0
	11 3	10 3	7 0	6 0
	11 3	10 3	7 0	6 0
	11 3	10 3	7 0	6 0
	11 3	10 3	7 0	6 0
	11 3	10 3	8 0	7 0
	11 3	10 3	10 0	9 0
	11 3	10 3	11 6	10 5
	11 0	10 0	8 6	7 5
	10 6	9 5	7 6	6 5
	10 0	9 0	7 6	6 5
	9 6	8 5	7 9	6 8
	8 6	7 5	8 0	7 0
	8 0	7 0	9 0	8 0
	7 9	6 8	13 6	12 5
	7 6	6 5	14 0	13 0
	7 6	6 5	14 3	13 3
	7 9	6 8	12 6	11 5
	7 9	6 8	9 6	8 5
	8 3	7 3	8 6	7 5
	9 9	8 8	8 6	7 5
	14 6	13 5	8 9	7 8
			9 6	8 5

Shore	8' 0"	7' 0"	11' 6"	10' 5"
	8 0	7 0	12 3	11 3
	8 3	7 3	9 9	8 8
	6 0	5 0	9 3	8 3
	9 6	8 5	12 6	11 5
	10 6	9 5	11 0	10 0
	10 9	9 8	11 3	10 3
	11 0	10 0	9 6	8 5
	9 0	8 0	7 3	6 3
	10 6	9 5	7 0	6 0
	11 3	10 3	7 0	6 0
	11 3	10 3	7 3	6 3
	11 3	10 3	7 3	6 3
	11 3	10 3	7 3	6 3
	11 3	10 3	8 0	7 0
	11 0	10 0	10 0	9 0
	11 3	10 3	12 3	11 3
	11 0	10 0	8 9	7 8
	10 9	9 8	7 9	6 8
	10 0	9 0	7 9	6 8
	9 0	8 0	8 0	7 0
	8 3	7 3	8 3	7 3
	8 0	7 0	11 3	10 3
	7 9	6 8	13 6	12 5
	7 6	6 5	11 9	10 8
	7 3	6 3	12 3	11 3
	7 6	6 5	13 3	12 3
	7 9	6 8	13 3	12 3
	8 3	7 3	10 6	9 5
	8 6	7 5	8 9	7 8
	13 6	12 5	8 9	7 8
			8 9	7 8

Exhibit 2.

6' 2"

1120 feet south.

Shore	7' 0"	6' 0"	12' 0"	11' 0"
	7 0	6 0	12 0	11 0
	6 6	5 5	9 0	8 0
	7 0	6 0	9 9	8 8
	9 6	8 5	12 9	11 8
	10 0	9 0	11 3	10 3
	10 6	9 5	11 3	10 3
	11 0	10 0	8 0	7 0
	11 0	10 0	7 0	6 0
	11 0	10 0	7 0	6 0
	11 0	10 0	7 0	6 0
	11 0	10 0	7 0	6 0
	11 0	10 0	7 0	6 0
	11 0	10 0	8 0	7 0
	11 0	10 0	11 0	10 0
	11 0	10 0	11 0	10 0
	10 9	9 8	8 0	7 0
	10 0	9 0	7 6	6 5
	9 0	8 0	7 6	6 5
	8 3	7 3	8 0	7 0
	8 0	7 0	9 9	8 8
	7 0	6 0	13 0	12 0
	6 9	5 8	10 6	9 5
	6 9	5 8	8 6	7 5
	6 9	5 8	8 0	7 0
	7 0	6 0	9 9	8 8
	7 0	6 0	13 0	12 0
	7 6	6 5	9 0	8 0
	9 0	8 0	8 6	7 5
	13 6	12 5	9 0	8 0

6' 2"

1140 feet south.

Shore	6' 0"	5' 0"	11' 6"	10' 5"
	6 9	5 8	12 0	11 0
	6 0	7 0	10 3	9 3
	8 0	5 0	11 6	10 5
	9 6	8 5	13 6	12 5
	10 0	9 0	11 3	10 3
	10 6	9 5	9 9	8 8
	10 6	19 5	7 6	6 5
	11 0	10 0	9 0	8 0
	11 0	10 0	8 9	7 8
	11 0	10 0	9 0	8 0
	11 0	10 0	7 0	6 0
	11 3	10 3	7 3	6 3
	11 3	10 3	8 0	7 0
	11 0	10 0	11 0	10 0
	11 0	0 0	11 6	10 5
	10 9	9 8	8 3	7 3
	10 0	9 0	7 2	6 8
	9 0	8 0	8 0	7 0
	8 0	7 0	9 4	8 3
	7 6	6 5	12 9	11 8
	7 0	6 0	11 0	10 0
	7 0	6 0	8 9	7 8
	6 9	5 8	8 0	7 0
	7 0	6 0	8 0	7 0
	7 0	6 0	8 3	7 3
	7 3	6 3	11 0	10 0
	7 9	6 8	13 3	12 3
	9 3	8 3	9 6	8 5
	14 0	13 0	8 9	7 8
			9 0	8 0

Soundings of February, 1872.

997

6' 6"

6' 6"

Exhibit 2.

1160 feet south.

1180 feet south.

Shore	6' 3"	5' 6"	11' 9"	10' 1"
	6 6	5 8	11 3	10 6
	7 0	6 3	12 0	11 3
	8 6	7 8	12 0	11 3
	9 0	8 3	12 6	11 8
	9 6	8 8	11 6	10 8
	10 0	9 3	11 0	10 3
	10 6	9 8	7 9	7 1
	10 9	9 1	7 0	6 3
	11 3	10 6	7 0	6 3
	11 3	10 6	7 0	6 3
	11 3	10 6	7 0	6 3
	11 3	10 6	7 0	6 3
	11 0	10 3	7 0	6 3
	11 0	10 3	7 6	6 8
	11 0	10 3	9 9	9 1
	10 6	9 8	11 0	10 3
	10 0	9 3	8 6	7 8
	9 3	8 6	8 0	7 3
	8 0	7 3	8 6	7 8
	7 9	7 1	7 0	7 3
	7 6	6 8	12 9	12 1
	7 3	6 6	9 0	8 8
	7 0	6 3	8 0	7 3
	7 0	6 3	8 0	7 3
	7 0	6 3	8 0	7 3
	7 0	6 3	8 0	7 3
	7 0	6 3	8 3	7 6
	7 6	6 8	9 9	9 1
	9 0	8 3	13 3	12 6
	12 9	11 1	10 0	9 3
	11 0	10 3	9 0	8 3
			9 6	8 8

Shore	8' 0"	7' 3"	14' 0"	13' 3"
	6 9	6 1	10 6	9 8
	7 3	6 6	11 6	10 8
	8 9	8 1	12 0	11 3
	9 3	8 6	12 3	11 6
	9 9	9 1	12 3	11 6
	9 9	9 1	11 9	11 1
	10 6	9 8	8 0	7 3
	10 9	10 1	7 3	6 6
	11 3	10 6	7 0	6 3
	11 3	10 6	7 0	6 3
	10 3	9 6	7 3	6 6
	11 0	10 3	7 0	6 3
	11 3	10 6	7 6	6 8
	11 0	10 3	9 0	8 3
	10 6	9 8	11 3	10 6
	10 0	9 3	9 6	8 8
	9 0	8 3	9 6	8 8
	8 0	7 3	11 6	10 8
	7 3	6 6	13 0	12 3
	7 3	6 6	9 0	8 3
	7 3	6 6	8 0	7 3
	7 0	6 3	8 0	7 3
	7 0	6 3	8 0	7 3
	7 0	6 3	8 0	7 3
	7 3	6 6	8 3	7 6
	8 6	7 8	9 3	8 6
	13 0	12 3	13 0	12 3
	13 3	12 6	10 3	9 6
	13 0	12 3	9 0	8 3
			9 6	8 8

Exhibit 2.

From a point 1200 feet from
shore to outer breakwater
on line of South Pier,
soundings 100' apart.

6' 6"

300 feet south.

13 3	12 6	9 3	8 6
12 0	11 3	10 0	9 3
10 6	9 9	12 0	11 3
12 3	11 6	10 9	10 1
12 6	11 9	9 6	8 8
12 6	11 9	12 3	11 6
12 9	12 1	13 3	12 6
16 0	15 3	13 6	12 8
17 0	16 3	15 6	14 8
22 0	21 3	17 3	16 6
19 3	18 6	16 6	15 8

100 feet south.

10 0	9 3
10 9	10 1
12 0	11 3
11 6	10 8
13 0	12 3
13 0	12 3
13 6	12 8
15 6	14 8
17 6	16 8
19 0	18 3
18 9	18 1

400 feet south.

9 0	8 3
9 0	8 3
9 6	8 8
10 0	9 3
10 9	10 1
7 9	7 1
9 3	8 6
14 6	13 8
15 6	14 8
17 0	16 3
15 0	14 3

200 feet south.

9 6	8 8
10 0	9 3
11 0	10 3
6 0	5 3 old wreck
12 6	11 8
12 0	11 3
13 6	12 8
15 0	14 3
17 0	16 3
18 0	17 3
18 3	17 6

500 feet south.

9 3	8 6
9 3	8 6
9 9	9 1
10 3	9 6
11 0	10 3
8 0	7 3
9 9	9 1
11 0	10 3
14 3	13 6
16 0	15 3
15 6	14 8

6' 6"

6' 6" Exhibit 2

600 feet south.

9 3	8 6
9 0	8 3
9 6	8 8
8 0	7 3
11 0	10 3
8 0	7 3
10 9	10 1
11 6	10 8
14 0	13 3
15 6	14 8
15 0	14 3

700 feet south.

9 9	9 1
9 0	8 3
9 6	8 8
9 6	8 8
11 3	10 6
9 9	9 1
7 6	6 8
12 6	11 8
10 0	9 3
14 3	13 6
15 0	14 3

800 feet south.

11 6	10 8
9 0	8 3
9 6	8 8
10 0	9 3
11 0	10 3
11 0	10 3
8 6	7 8
10 0	9 3
11 0	10 3
13 6	12 8
15 0	14 3

900 feet south.

10 6	9 8
9 0	8 3
9 6	8 8
10 6	9 8
11 3	10 6

11 6	10 6
10 0	9 3
9 3	8 6
9 0	8 3
12 3	11 6
15 3	14 6

1000 feet south.

10 9	10 1
9 0	8 3
9 9	9 1
10 6	9 8
11 3	10 6
7 6	6 8
11 6	10 8
10 6	9 8
10 3	9 6
11 0	10 3
14 0	13 3

1100 feet south.

10 0	9 3
9 6	8 8
10 0	9 3
10 9	10 1
11 6	10 8
9 0	8 3
11 6	10 8
11 0	10 3
10 3	9 6
11 9	11 1
13 0	12 3

1180 feet south.

10 3	9 6
9 6	8 8
10 3	9 6
11 0	10 3
11 3	10 6
12 0	11 3
12 0	11 3
11 6	10 8
10 0	9 3
12 0	11 3
14 0	13 3

6' 2"

6' 2"

Exhibit 2.

Running east from old break-
water on a line 400 south
of Randolph St. Sound-
ings 100 apart.

800 feet south of Randolph St.

6 6	5 5	11 6	10 5	7 6	6 5	12 0	11 0
11 0	10 0	13 6	12 5	8 6	7 5	14 9	13 8
8 6	7 5	19 0	18 0	8 3	7 3	16 6	15 5
8 0	7 0	18 6	17 5	8 6	7 3	18 3	17 3
8 3	7 3	15 6	14 5	9 0	8 0	19 0	18 0
8 6	7 5	15 6	14 5	9 0	8 0	22 0	21 0
9 0	8 0	14 3	13 3	9 0	8 0		
9 6	8 5			9 0	8 0		
10 0	9 0			9 3	8 3		
10 0	9 0			9 9	8 8		
8 6	7 5			10 0	9 0		
9 0	8 0			10 9	9 8		
6 0	5 0			7 0	6 0		
5 9	4 8			6 3	5 3		
6 3	5 3			6 6	5 5		
6 9	5 8			7 0	6 0		
7 0	6 0			7 3	6 3		
7 0	6 0			7 6	6 5		
9 6	8 5			7 9	6 8		
8 0	7 0			8 0	7 0		
8 3	7 3			8 6	7 5		
8 9	7 8			9 0	8 0		
10 0	9 0			9 6	8 5		
11 0	10 0			8 9	7 8		
11 0	10 0			10 0	9 0		
11 9	10 8			10 6	9 5		
				11 0	10 0		
				11 6	10 5		

6' 2"

6' 2" Exhibit 2.

1200 feet south of Randolph
street.

1600 feet south of Randolph
street.

7 3	6 3	15 6	14 5
8 3	7 3	17 6	16 5
9 0	8 0	18 6	17 5
8 6	7 5	21 0	20 0
9 0	8 0	20 0	19 0
9 0	8 0	20 6	19 5
9 0	8 0		
9 3	8 3		
9 6	8 5		
9 6	8 5		
9 3	8 3		
7 0	6 0		
6 0	5 0		
6 3	5 3		
6 9	5 8		
7 0	6 0		
7 6	6 5		
7 9	6 8		
8 3	7 3		
8 6	7 5		
8 9	7 8		
9 0	8 0		
9 6	8 5		
10 0	9 0		
10 3	9 3		
11 0	10 0		
12 0	11 0		
13 6	12 5		

7 6	6 5
8 9	7 8
9 6	8 5
9 6	8 5
9 3	8 3
9 3	8 3
9 6	8 5
9 6	8 5
9 9	8 8
10 0	9 0
9 6	8 5
7 3	6 3
6 6	5 5
7 0	6 0
7 0	6 0
7 3	6 3
6 0	5 0
8 0	7 0
8 0	7 0
8 3	7 3
8 9	7 8
9 0	8 0
9 9	8 8
10 6	9 5
11 3	10 3

6' 2"

6' 2"

Exhibit 2.

2000 feet south of Randolph
street.2400 feet south of Randolph
street.

8 0	7 0	8 6	7 5
9 6	8 5	8 9	7 8
9 3	8 3	9 3	8 3
9 3	8 3	9 6	8 5
9 3	8 3	9 6	8 5
9 3	8 5	9 6	8 5
9 6	8 5	9 9	8 8
9 9	8 8	9 9	8 8
9 9	8 8	9 9	8 8
10 0	9 0	10 0	9 0
10 0	9 0	10 0	9 0
10 0	9 0	10 3	9 3
9 9	8 8	10 6	9 5
9 0	8 0	10 6	9 5
8 9	7 8	10 6	9 5
8 6	7 5	10 6	9 5
8 6	7 5	10 6	9 5
8 6	7 5	10 9	9 8
8 9	7 8	11 0	10 0
9 0	8 0	11 3	10 3
9 6	8 5	11 6	10 5
10 0	9 0	12 0	11 0
10 6	9 5		
11 6	10 5		
12 6	11 5		

6' 2"

6' 2"

2800 feet south of Randolph street.

Exhibit 2

8 9	7 2
9 6	8 5
10 3	9 3
10 3	9 3
10 6	9 5
11 9	10 8
11 0	10 0
10 3	9 3
10 0	9 0
10 3	9 3
10 3	9 3
10 6	9 5
10 6	9 5
10 6	9 5
10 6	9 5
10 6	9 5
10 9	9 8
11 0	10 0
11 3	10 3
12 0	11 0
12 3	11 3

10 6	9 5
10 6	9 5
10 6	9 5
10 9	9 8
11 9	10 8
11 0	10 0
11 3	10 3
11 6	10 5
11 6	10 5
11 9	10 8
12 0	11 0
12 6	11 5

3600 feet south of Randolph street.

8 6	7 5
9 6	8 5
10 3	9 3
11 3	10 3
11 6	10 5
11 3	10 3
11 3	10 3
11 3	10 3
11 0	10 0
11 0	10 0
11 0	10 0
11 0	10 0

3200 feet south of Randolph street.

9 9	8 8
10 0	9 0
10 9	9 8
11 6	10 5
12 0	11 0
11 9	10 8
11 0	10 0
10 3	9 3
10 6	9 5

11 0	10 0
11 0	10 0
11 0	10 0
11 0	10 0
11 3	10 3
11 6	10 5
11 6	10 5
12 0	11 0
12 3	11 3
12 6	11 6
13 0	12 0
13 0	12 0

Exhibit 2. 6' 2"

6' 2"

4000 feet south of Randolph
street.

9 6	8 5
11 0	10 0
11 0	10 0
12 0	11 0
12 6	11 5
13 0	12 0
13 0	12 0
13 0	12 0
12 9	11 8
11 6	10 5
11 6	10 5
11 9	10 8
12 0	11 0
12 3	11 3
12 6	11 5
13 0	12 0
13 3	12 3
13 3	12 3
13 6	12 5
13 9	12 8
14 0	13 0

12 3	11 3
12 6	11 5
12 6	11 5
12 9	11 8
13 0	12 0
13 3	12 3
13 3	12 3
13 9	12 8
14 0	13 0
14 6	13 5
14 3	13 3

4800 feet south of Randolph
street.4400 feet south of Randolph
street.

9 0	8 0
9 9	8 8
10 3	9 3
12 3	11 3
12 0	11 0
12 0	11 0
12 0	11 0
11 9	10 8
12 0	11 0
12 0	11 0

10 6	9 5
10 3	9 3
11 0	10 0
12 0	11 0
12 3	11 3
13 0	12 0
12 9	11 8
13 0	12 0
12 6	11 5
12 6	11 6
13 0	12 0
13 0	12 0
13 0	12 0
13 3	12 3
13 6	12 5
13 9	12 8
14 0	13 0
14 0	13 0
14 3	13 3
14 3	13 3
14 6	13 5

Soundings of February, 1872.

1005

On N. line of Eldredge court. N. line of 13th St. (100 ft. apart) Exhibit 2.

Soundings 200 feet apart.			New crib	
			12 6	11 5
0	10 0	9 3	13	12 0
200	10 5	9 8	13 9	12 8
400	12 0	11 3	14	13 0
600	13 0	12 3	14 6	13 5
800	13 0	12 3	14 9	13 8
1000	14 5	13 8	15	14 0
1200	13 0	12 3	14 9	13 8
1400	13 5	12 8	14 6	13 5
1600	14	13 3	14 6	13 5
1800	14	13 3	15 3	14 3

Water 2.5 below bench = 3.20.

" 0.7 above city datum.	14 6	13 5
	14 6	13 5
	14 6	13 5
	15 0	14 0

On N. line of Harmon court.

Soundings 200 feet apart.				
			15	14 0
0	11 0	10 3	15	14 0
200	11 5	10 8	15 6	14 5
400	13 0	12 3	15 9	14 8
600	14 3	13 6	16	15 0

N. line of 14th St. (100 ft. apart)

Soundings 200 feet apart.			New crib	
			13	12 0
0	11 0	10 3	14 3	13 3
200	11 5	10 8	14 3	13 3
400	13 0	12 3	14 3	13 3
600	14 3	13 6	14 3	13 3
800	14 3	13 6	14 3	13 3
1000	14 0	13 3	14	13 0
1200	14 0	13 3	14	13 0

Water 2.5 below bench = 3.20.

" 0.7 above city datum.	14 3	13 3
	14 3	13 3
	14 3	13 3
	14 3	13 3
	14	13 0

On N. line of Park Row.

			14	13 0
0	10 0	9 3	14	13 0
100	11 5	10 8	14	13 0
200	12 0	11 3	14	13 0
400	13 0	12 3	14 3	13 3
600	14 0	13 3	14 6	13 5
800	14 5	13 8	15	14 0
1000	14 5	13 8	15 3	14 3
1200	14 5	13 8	15 6	14 5
1400	14 5	13 8	15 6	14 5

Water 2.5 below bench = 3.20.

" 0.7 above city datum.	15 9	14 8
	16	15 0
	16 3	15 3
	16 3	15 3

Exhibit 2. 150 feet S. of S. line of Park Row.				S. line of 12th street.			
				0	not taken		
0	5	0	4 3	50	7	5	6 8
44	7	0	6 3 breakwater	72	9	0	8 3 breakwater

Water 2.5 below bench=3.20 Water 2.5 below bench B=3.20

" 0.7 above city datum. " 0.7 above city datum

535 ft. N. of N. line of 13th street. 415 ft. N. of N. line of 13th street.

0	5	0	4 3	0	5	0	4 3
25	7	0	6 3	50	7	5	6 8
50	7	0	6 3	100	7	0	6 3
98	6	5	5 8 breakwater	160	8	0	7 3
				170	breakwater.		

Water 2.5 below bench.

" 0.7 above city datum.

Water 2.5 below bench.

" 0.7 above city datum.

175 ft. N. of N. line of 13th street. 280 ft. N. of N. line of 13th street.

0				0	6	3	5 6
50	9	0	8 3	50	8	5	7 8
100	9	7	9 0	100	9	0	8 3
150	10	3	9 6	150	10	0	9 3
200	11	6	10 9	200	11	0	10 3
250	12	3	11 6	225	breakwater		
253	breakwater.						

Water 2.5 below bench.

" 0.7 above city datum.

Soundings of February, 1872.

1007

N. line of 13th St. 118 ft. S. of S. line of 13th St. Exhibit 2
Going due E.

0	5 0	4 3	0	7 0	6 3
50	9 4	8 7	50	9 4	8 7
100	10 3	9 6	100	10 3	9 6
150	11 0	10 3	150	11 0	10 3
200	11 5	10 8	200	11 5	10 8
250	12 0	11 3	250	12 0	11 3
300	12 8	12 1	300	12 0	11 3
310	breakwater.		320	breakwater	

Water 2.5 below bench.

" 0.7 above city datum.

328 ft. S. of N. line of 13th St. 542 ft. S. of N. line of 13th St.
Going E. Going E.

0	6 0	5 3	0	0 0	
50	10 0	9 3	50	8 0	7 3
100	10 3	9 6	100	9 2	8 5
150	11 0	10 3	150	10 3	9 6
200	11 5	10 8	200	11 0	10 3
250	12 0	11 3	250	12 0	11 3
300	12 5	11 8	300	12 7	12 0
325	breakwater.		330	breakwater.	

Water 2.5 below bench.

" 0.7 above city datum.

1896. Spring, Feb. 7, 3-33 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Monday, February seventeenth, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

People of the State of Illinois	/	
18502 vs.		In Chancery.
Illinois Central Railroad Company.	\	

Now come the parties by their solicitors; now this cause comes on to be heard on the Master's report filed herein. The court, after hearing the arguments of counsel in part, postpones the further hearing of this matter until to-morrow morning.

1896. Spring, Feb. 8, 3-34 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Tuesday, February eighteenth, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

People of the State of Illinois	/	
18502 vs.		In Chancery.
Illinois Central Railroad Company.	\	

Now again come the parties by their solicitors; now the Master's report comes on to be further heard. The court, after hearing the arguments of counsel in part, postpones the further hearing of this matter until to-morrow morning at ten A. M.

Hearing on Master's Report.

1009

3-35 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division. Hearing, P
1896.

Wednesday, February nineteenth, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

People of the State of Illinois	{	
18502 vs.	}	In Chancery.
Illinois Central Railroad Company.		

Now again come the parties by their solicitors, and now again comes on to be heard this cause on the Master's report filed herein. The court, after hearing the arguments of counsel in part, postpones the further hearing of this matter until to-morrow morning.

3-35 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division. Hearing, P
1896.

Thursday, February twentieth, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

People of the State of Illinois	{	
18502 vs.	}	In Chancery.
Illinois Central Railroad Company.		

Now again come the parties by their solicitors; now again this cause comes on to be heard on the Master's report filed herein. The court, after hearing the arguments of counsel in conclusion, takes this matter under advisement.

Decree, May 26, 1896. 3-37 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Tuesday, May twenty-sixth, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

The People of the State of Illinois, upon
the relation of George Hunt, Attorney
General,

18502

vs.

The Illinois Central Railroad Company
and The City of Chicago.

Information.
In Chancery.

Whereas, by the judgment of the Supreme Court of the United States rendered at the October term, A. D. 1892, in the appeals taken from the former decree of this court entered September 24, 1888, in the above entitled cause, it was ordered and adjudged that the said decree as it respects the pier commenced in 1872 and the piers completed in 1880 and 1881, marked 1, 2 and 3, near Chicago river, and the pier and docks between and in front of Twelfth and Sixteenth streets, be so modified as to direct this court to order such investigation to be made as may enable it to determine whether those piers erected by the company by virtue of its riparian proprietorship of lots formerly constituting part of section ten extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake, and if it be determined upon such investigation that said piers, or any of them, do not extend beyond such point, then that the title and 3-38 possession of the railroad company to such piers shall be affirmed by the court, but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers, to the excess ascertained, to be abated and removed, or that other proceedings relating thereto be taken on the application of the State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the piers and docks constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability and to affirm the title and possession of the

company if they do not extend beyond such point, and if they do extend beyond such point to order the abatement or removal of the excess, or that other proceedings relating thereto be taken on application of the State as may be authorized by law.

Decree,
1896.

And, whereas, by the mandate of the said Supreme Court, dated April 10, 1893, directed to the judges of the Circuit Court of the United States for the Northern District of Illinois, produced in this court and filed in this cause April 12, 1893, in which mandate the judgment and decree of the said Supreme Court are set out at large; the judges of the said Circuit Court are commanded that such execution and further proceedings be had in said cause, in conformity with the opinion and decree of the said Supreme Court as according to right and justice and the laws of the United States ought to be had.

And, whereas, proceedings have been taken and an investigation made by the order of this court pursuant to and in accordance with the aforesaid judgment of the Supreme

Court: Now, on coming in of the Master's report of 3-39 the evidence taken before him under the order of reference heretofore, to wit, October 27, 1893, made in this cause in the course of said proceedings and upon the introduction of further documentary evidence produced before the court by consent of the parties and filed in this cause with the clerk of the court on the 17th day of February, 1896, consisting of (1) an ordinance of the city council of Chicago relating to the lake front, passed October 21, 1895, and approved by the mayor October 23, 1895; (2) the acceptance of said ordinance by the Illinois Central Railroad Company October 28, 1895; (3) an agreement between the city of Chicago and the Illinois Central Railroad Company, dated November 20, 1895; (4) a permit from the Secretary of War and accompanying plat, dated July 24, 1895; (5) a permit from the Secretary of War and accompanying plat, dated November 30, 1895; and (6) the monthly mean water levels shown on the annual water level curves in Lakes Michigan and Huron, from 1859 to 1892, both inclusive, being plat III, to Appendix c.c.c.6 to annual report of the chief of engineers of the United States War Department for 1892. The said cause came on to be heard at this term upon the said evidence, and other proceedings in the cause, including the stipulations made and the evidence taken and filed herein

Decree, May 29,
1906.

prior to the said former decree, and was argued by counsel, and thereupon, in consideration thereof, it is found and adjudged by the court that the said piers and docks referred to in the aforesaid judgment and mandate of the Supreme Court and there described as piers marked 1, 2 and 3, near Chicago river, and the piers and docks constructed by the said 3-40 railroad company in front of the shore between Twelfth and Sixteenth streets, all in the city of Chicago, in the State of Illinois, do not extend, nor does either of them extend, into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake.

It is therefore ordered, adjudged and decreed that the title and possession of the said Illinois Central Railroad Company to the said piers, and each of them and every part thereof, be, and the same is hereby, affirmed.

It is therefore ordered, adjudged and decreed that the title and possession of the said Illinois Central Railroad Company to the said piers and docks, and each of them and every part thereof, be, and the same is hereby, affirmed.

It is further ordered that neither party shall have or recover any costs of the other incurred in this special investigation.

Decision of Court 3-41

DECISION OF COURT.

United States of America, State of Illinois, ss:

United States Circuit Court, Northern District of Illinois.

Attorney General

vs.

Illinois Central Railroad.

Wednesday, March 25, 1896, 4 o'clock P. M.

DECISION.

SHOWALTER, J.:

In Attorney General vs. Illinois Central Railway, the question in that case is determined by the mandate of the Supreme Court of the United States.

The only question of fact left to be determined by this court is, whether or not—this is the language of the mandate—"the piers and docks between 12th and 16th streets extend into the lake beyond the point of practicable navigability, having reference to the manner in which commerce in vessels is conducted on the lakes."

Decision of

The point of navigability within the sense of this opinion, as I understand it, and of this mandate, is on the line which separates what I might call the surveyed belt around the margin of the lake from the enclosed navigable waters.

This belt, within the authority of the opinion, extends to the point where vessels of the largest class continuously 3-42 used in lake navigation must stop in their approach to the shore. Such vessels, when laden, require from 16 to 20 feet of water in which to float. A vessel drawing more than 12 feet, as I find from the evidence in the case, would hardly reach the structure here in question in the ordinary stages of water, and in the lowest water vessels requiring more than 10 feet could not reach or land at these docks.

Without being specific as to the exact depth of the water, I find that the piers and docks between 12th and 16th streets do not extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lakes, and I make the same finding as to the piers and docks north of Randolph street.

A decree may be made in accordance with this finding and of the mandate.

3-43 And on the second day of July, A. D. 1896, came the complainant, by its solicitors, and filed in said clerk's office its notice in said above entitled cause. Which said notice is in the words and figures following, to wit:

NOTICE.

Notice, July 2,
1896.

United States of America, Northern District of Illinois, ss:
In the Circuit Court of the United States for the Northern
District of Illinois.

The State of Illinois
18502 vs.
Illinois Central R. R. Co.

To B. F. Ayer, Solicitor for parties as of record:

You are hereby notified that on Thursday, the second day of July, A. D. 1896, at 10 A. M., or as soon thereafter as counsel can be heard, before Judge Showalter, in the room usually occupied by him, or, in case he does not hold court, then in chambers, we shall appear and ask for the court to enter an order allowing time to file certificate of evidence in above entitled cause; when and where you may appear if you see fit.

M. T. MOLONEY, Attorney General, and
HAMLINE, SCOTT & LORD,
Solicitors for Complainant.

Chicago, July 1, 1896.

Service of above notice is accepted this 1st day of July,
A. D. 1896.

State of Illinois, County of Cook, ss:

3-44 John E. MacLeish, being first duly sworn, deposes
and says that he served the above notice upon said B. F.
Ayer by delivering a copy thereof to C. V. Gwin, in the office
of said Ayer, on the 1st day of July, A. D. 1896.

JOHN E. MacLEISH

Subscribed and sworn to before me this 2d day of July,
A. D. 1896.

(Seal.)

WILLIAM F. POOLE,
Notary Public.

(Endorsed:) Filed July 2, 1896. S. W. Burnham,
clerk.

3-45 In the Circuit Court of the United States in and for the Northern District of Illinois, Northern Division.

Order, Ju

Thursday, July second, A. D. 1896.

Present: Honorable John W. Showalter, circuit judge.

People of the State of Illinois	}	In Chancery.
18502 vs.		
Illinois Central Railroad Co.		

It is ordered that the complainant have until the first day of November, A. D. 1896, to file its certificate of evidence in the above entitled cause.

3-46 And on this day, to wit, the thirteenth day of October, A. D. 1896, came the complainant, by its solicitors, and filed in said clerk's office its certificate of evidence in said above entitled cause. Which said certificate of evidence is in the words and figures following, to wit:

CERTIFICATE OF EVIDENCE.

United States of America, Northern District of Illinois, ss:

In the Circuit Court of the United States for the Northern District of Illinois, October Term, A. D. 1896.

Certificate
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People of the State of Illinois, ex rel. George Hunt, Attorney General, com- plainant,	}	In Chancery.
vs.		
Illinois Central Railroad Company et al., defendants.		

CERTIFICATE OF EVIDENCE.

Be is Remembered, That on the trial of the above entitled cause, before the Honorable John W. Showalter, judge of the Circuit Court of the United States for the Northern District of Illinois, at the December term, A. D. 1895, in addition to the report of the Master of evidence taken before him under order of reference heretofore entered in this cause, on, to wit, the 27th day of October, 1893, there was other evidence with the consent of the parties hereunto introduced upon the hearing of said cause and filed in this cause on the 17th day

Certificate of evidence.

of February, 1896, in behalf of the complainant, as follows, being plate 3 of the annual reports upon survey of the northern and northwestern lakes and reconnaissances and explorations in military departments; being Appendixes CCC and EEE of the annual report of the chief of engineers for 1892, and printed by the United States government, to wit:

ANNUAL REPORTS

Upon

SURVEY OF THE NORTHERN AND NORTHWESTERN LAKES

And

RECONNAISSANCES AND EXPLORATIONS IN MILITARY DEPARTMENTS;

Being Appendixes CCC and EEE of the
ANNUAL REPORT OF THE CHIEF OF ENGINEERS
FOR 1892.

Washington:
GOVERNMENT PRINTING OFFICE.
1892.

3-48 And in behalf of the defendants there was introduced the following documentary evidence, to wit:

(1) Ordinance of the city council of Chicago relating to lake front, passed October 21, 1895, and approved by the mayor October 23, 1895.

(2) Acceptance of said ordinance by the Illinois Central Railroad Company, October 28, 1895.

(3) Agreement between the city of Chicago and the Illinois Central Railroad Company, dated November 20, 1895.

(4) A permit from the Secretary of War and accompanying plat, dated July 24, 1895.

(5) A permit from the Secretary and accompanying plat, dated November 30, 1895.

Said documents being next herein set out in full, as follows, to wit:

CITY OF CHICAGO, ILLINOIS.

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dence.

3-49-1

An Ordinance Relating to the Lake Front.

Passed Oct. 21, 1895. Approved, Oct. 23, 1895

Whereas, It was decided and adjudged in and by the final decree of the Circuit Court of the United States for the Northern District of Illinois, entered September 24, 1888, in the original suit of The People of the State of Illinois, upon the relation of the Attorney General of said State, complainants, against the Illinois Central Railroad Company and the City of Chicago, defendants, and the cross suit of the City of Chicago, complainant, against the Illinois Central Railroad Company and The People of the State of Illinois, defendants,—which decree was afterwards, in this respect, affirmed on appeal by the Supreme Court of the United States,—that (saving the rights of the Illinois Central Railroad Company defined in the said decree) the fee of all the public grounds in the city of Chicago lying east of Michigan avenue and between the north line of Randolph street extended to Lake Michigan and the north line of block twenty-three, extended to the lake, in Fractional Section Fifteen Addition of Chicago, including the grounds upon which rest the

3-49-2 tracks and breakwater constructed by the Illinois Central Railroad Company, is in the City of Chicago in trust for public use; and that the City of Chicago, as riparian owner of said grounds on the east or Lake Front of said city, between the north line of Randolph street and the north line of block twenty-three, each of said lines being produced to Lake Michigan, and in virtue of authority to that end conferred by its charter, has, among other powers, the power to establish, construct, erect and keep in repair on said Lake Front east of said premises, in such manner as may be consistent with law, public landing places, wharves, docks and piers, subject, however, in the execution of this power, to the authority of the State by legislation to prescribe the lines beyond which piers, docks, wharves and other structures other than those erected by the General Government, may not be extended into the waters of the harbor that are navigable in fact, and to such supervision and control as the United States may rightfully exercise in and over said harbor; and,

Certificate of evidence.

Whereas, The public interests imperatively require that the power thus vested in the City of Chicago should now be exercised, and permission has been obtained from the Secretary of War, according to the form of the statute of the United States in such case made and provided, to fill in a portion of the outer harbor at Chicago, as far out as the harbor line established by the Secretary of War September 22, 1890, upon the following conditions:

1. That there shall be constructed along the dock line, entirely closing the area to be filled, before any deposit whatever may be made, a substantial and tight bulkhead or retaining wall, extending not less than six feet above extreme low water in Lake Michigan, so constructed that it shall allow dredging to a depth of twenty (20) feet against it, and 3-49-3 shall be of sufficient mass to act as a retaining wall against a back filling reaching to its top.
2. That not more than two openings, one hundred feet in width each, shall be temporarily left in this retaining wall or bulkhead for the passage of craft transporting the material for filling or deposit, which openings shall be closed upon notification by the Secretary of War.
3. That the plans of such bulkheads or retaining wall shall be submitted to and receive the approval of the Secretary of War, and the structure be built in accordance with such approved designs.
4. That the work so permitted to be done shall be subject to the supervision and approval of the Engineer Officer of the United States Army in charge of the locality; and

Whereas, It is necessary to the successful prosecution of the said work and to secure safe and convenient access and egress to and from the grounds proposed to be filled and reclaimed, lying east of the Illinois Central Railroad, that an amicable arrangement and agreement be made by and between the City of Chicago, and the Illinois Central Railroad Company; and

Whereas, The Common Council of the City of Chicago, and the Illinois Central Railroad Company, entered into a contract, bearing date March 28, 1853, which was duly ex-

executed under their respective seals, by which, among other things, the City of Chicago for valuable considerations covenanted and agreed that said Railroad Company might "enter upon and use in perpetuity for its said line of road, and for works necessary to protect the same from the Lake, a width of 300 feet from the southern boundary of said public ground, near Twelfth street, to the northern line of Randolph street," only a part of which has been occupied by said Company; and it is claimed by said Railroad Company that the City of Chicago, is bound in good faith to carry out said covenant, by giving the license mentioned in the decree of the Court, in the suit above referred to, which shall authorize said Company to occupy the whole of said 300 foot strip; and

Certified
true and
correct
copy of
the
original
filed
in
the
office
of
the
City
Clerk
of
Chicago
this
23rd
day
of
October
1895.

Whereas, The parties to said contract will each be better accommodated by an arrangement permitting the said Railroad Company to appropriate and occupy for railroad purposes certain parcels of ground at each end of the said three hundred foot strip, instead of the full width of said strip throughout the entire length thereof; and

Whereas, It is understood that the Illinois Central Railroad Company is willing, for the considerations and on the terms and conditions hereinafter set forth, to comply with the provisions of this ordinance, so far as they relate to any matters or things required of, or to be undertaken, done or performed by said Company; therefore

Be it Ordained by the City Council of the City of Chicago:

Section 1. That for the purpose of providing suitable public landing places for steam vessels and other craft employed in navigation on Lake Michigan, the public grounds of the City of Chicago, known as Lake Park, lying east of Michigan Avenue and between the south line of Randolph street and the north line of Lake Park Place (formerly known as Park Row) shall be extended east of the tracks and grounds of the Illinois Central Railroad Company, by enclosing and filling all that space in the shallow waters of Lake Michigan within the outer harbor, so-called, included within the following boundary lines, to wit: The south line of Randolph street produced, on the north; the Harbor line established by the Secretary of War, September 22, 1890, on the east; the south line of Lake

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Park Place produced, on the south; and the present westerly shore line of the said Outer Harbor on the west.

Sec. 2. Permission and authority are hereby granted to the said Illinois Central Railroad Company to enter upon and use in perpetuity for railroad purposes all that part of the land to be filled and reclaimed, as provided in the preceding section, which lies between its present works and grounds on the lake shore and the following described line, that is to say: A line drawn from a point on the present shore or dock line seventy (70) feet north of the north line of Adams street produced east, and six hundred (600) feet east of the west line of Michigan avenue, extending thence northeasterly, on a six degree (6) curve to the right, about five hundred and twenty-five (525) feet, to a point seven hundred and fifty-one (751) feet east of the west line of Michigan Avenue; thence, on a tangent making an angle of thirty-one degrees and thirty minutes ($31^{\circ} 30'$) with a line parallel to the west line of Michigan Avenue, nine hundred and three (903) feet, to a point twelve hundred and thirty (1230) feet east of the west line of Michigan avenue; thence, on a six degree (6) curve to the right, about five hundred and fifty (550) feet, to a point in the present dock line on or near the south line of Randolph street produced, sixteen hundred and twenty (1620) feet east of the west line of Michigan Avenue; Provided, however, that the said Railroad Company shall either pay to the city the cost of filling the said parcel of land or shall do the work of filling at its own expense.

Sec. 3. Permission and authority are also hereby granted to the Illinois Central Railroad Company to enter upon and use in perpetuity for railroad purposes all that part of 3-49-6 the land to be filled and reclaimed as provided in the first section of this ordinance, which lies between its present works and grounds on the lake shore and the following described line, that is to say: A line drawn from a point on the present shore or dock line seventy-four (74) feet north of the north line of Eldredge Court produced east and six hundred (600) feet east of the west line of Michigan Avenue, extending thence southeasterly, on a four degree (4) curve to the left, about two hundred and fifty (250) feet, to a point six hundred and twenty-two (622) feet east of the west line of Michigan avenue; thence, on a tangent to the last mentioned curve making an angle of ten degrees (10) with a line

parallel to the west line of Michigan Avenue, about seven hundred and ninety (790) feet, to a point in the south line of Lake Park Place, produced easterly, seven hundred and sixty-one (761) feet east of the west line of Michigan Avenue: Provided, however, that the said Railroad Company shall either pay to the city the cost of filling the said parcel of land, or shall do the work of filling at its own expense.

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Sec. 4. Permission and authority are also hereby granted to the said Illinois Central Railroad Company to enter upon, fill in, appropriate and use in perpetuity for railroad purposes all that certain parcel of land now covered by the shallow waters of the lake within the said Outer Harbor, which lies between the present shore line and the following described line, to wit: a straight line drawn from a point in the south line of Lake Park Place, produced easterly, seven hundred and sixty-one (761) feet east of the west line of Michigan Avenue, extending thence southeasterly, making an angle of forty-five degrees (45) with a line parallel to the west line of Michigan Avenue, about seven hundred and seventy (770) feet, to a point in the north line of the said Illinois Central Railroad Company's Thirteenth Street Pier, thirteen hundred and twenty (1320) feet east of the west line of Michigan Avenue: Provided, however, that the work of filling the said parcel of land shall be done by the said Railroad Company at its own expense.

Sec. 5. The permission, rights and authority herein granted to the said Illinois Central Railroad Company, are upon the express conditions following, that is to say:

1. The said Railroad Company shall, at its own expense, cause that section of its road-bed, lying between the following described east and west lines, namely, a line two hundred (200) feet north of the north line of Peck Court, projected east and parallel thereto, and the north line of Monroe street projected east, to be depressed in such manner that the base of the rails of the west and east tracks laid thereon shall not exceed in elevation six (6) feet above Chicago city datum; and the space between those two tracks shall be crowned sufficiently to afford proper drainage, but the base of the rails of the intermediate tracks there laid shall not exceed in elevation seven (7) feet above Chicago city datum. North and south of the two lines above described, the road-

Certificate of evidence.

bed shall be so depressed and adjusted that the tracks laid thereon may be connected by suitable gradients with the tracks laid or to be laid north of the south line of Randolph street projected east, and south of the north line of Lake Park Place projected east.

2. The said Railroad Company shall, at its own expense, cause two retaining walls to be constructed of mason work, one on the west side, and the other on the east side, of its roadway and grounds between Randolph street and Lake Park Place, with suitable parapet walls or fences thereon, as may be approved or directed by the Commissioner of 3-49-8 Public works of said City, to guard the public from danger, the walls to be so placed that the east face of the retaining wall on the west side of the said Railroad Company's right of way, shall be on a straight line extending northerly from a point in the north line of Lake Park Place four hundred (400) feet east of the west line of Michigan avenue, parallel to said avenue, to a point two hundred feet south of the south line of Randolph street extended; thence northwesterly, in a straight line, to a point in the north line of Randolph street one hundred (100) feet west of the line first above described extended northerly to the north line of Randolph street extended; and the west face of the east retaining wall shall be on the following described line: Commencing at a point in the south line of Lake Park Place projected east seven hundred and sixty-one (761) feet east of the west line of Michigan avenue, extending thence northwesterly, in a straight line, seven hundred and ninety (790) feet, to a point six hundred and twenty-two (622) feet east of the west line of Michigan avenue; thence, on a four (4) degree curve to the right, to a point seventy-four feet north of the north line of Eldredge court produced east and six hundred (600) feet east of the west line of Michigan avenue; thence, on a straight line six hundred (600) feet east of the west line of Michigan avenue and parallel thereto, to a point seventy (70) feet north of the north line of Adams street produced east; thence, on a six (6) degree curve to the right, about five hundred and twenty-five (525) feet, to a point seven hundred and fifty-one (751) feet east of the west line of Michigan avenue; thence, on a tangent making an angle of thirty-one (31) degrees and thirty (30) minutes with a line parallel to Michigan avenue, nine hundred and

three (903) feet, to a point twelve hundred and thirty 3-49-9 (1230) feet east of the west line of Michigan avenue; thence, on a six (6) degree curve to the right, to its intersection with the north line of Randolph street extended. The said walls shall be raised to an elevation of twenty-two feet above Chicago city datum, and shall be of sufficient strength and solidity to serve permanently the purpose for which they are to be erected.

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3. The said Railroad Company shall, at its own expense, cause viaducts to be constructed across its tracks and right of way in line with the projection eastward of not more than four streets between Randolph street and Lake Park Place, to be designated by the city,—each of said viaducts to have a carriage-way and two foot-ways. It shall also, whenever directed so to do by the Commissioner of Public Works of said city, cause a foot-way to be constructed at its own expense across its tracks and right of way, in the line of any other street or streets between Randolph street and Lake Park Place. The superstructure of each of said viaducts and foot-ways shall be of metal, and the lowest point of such superstructure shall not be less than sixteen (16) feet in the clear above the railroad tracks.

4. The said Railroad Company shall also, at its own expense, cause the Randolph street viaduct to be altered and extended so as to furnish access to the new made public ground east of the railroad, and also to the grounds of the Railroad Company north of Randolph street, the said viaduct as so altered and extended to be maintained by the said Railroad Company at its own cost and expense.

5. The said Railroad Company shall also, at its own expense, cause a substantial and tight bulkhead or retaining wall to be constructed of timber, earth and loose stone, along the eastern dock line, and also along the southerly 3-49-10 line, of the area to be enclosed and filled, as provided in the first section of this ordinance, conformably to the requirements of the Engineer Officer of the United States Army having supervision of the work.

6. The said Railroad Company shall furnish and deliver on the ground, material to the extent of two hundred thousand (200,000) cubic yards, if so much shall be needed, for

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the purpose, to fill in the Lake Front Park lying between said company's right of way and Michigan avenue, to the height of twenty-two feet above Chicago city datum along the west side of the wall to be erected by said company on the westerly side of said right of way between Randolph street and Lake Park Place and immediately adjacent thereto, and to raise the ground in the rest of said park, or so much thereof as shall be deemed necessary, so that the surface shall have a regular slope westward from the elevation on the westerly side of said wall down to the grade of Michigan avenue. To facilitate the delivery of such material, the said company shall have the right to lay temporary railroad tracks in said park, which shall be removed as soon as the delivery is completed.

7. The said Railroad Company shall relinquish and surrender to the city the two filled projections into the lake beyond the east line of its right of way at the foot of Peck court and Harrison street, containing altogether about thirty-four one-hundredths ($34/100$) of an acre; and also any land there may be east or outside of that part of its right of way, two hundred feet in width, which lies south of a line drawn across the said right of way seventy feet north of the north line of Adams street produced easterly and parallel thereto, and north of a line drawn across the said right of way seventy-four (74) feet north of the north line of Eldredge court produced easterly and parallel thereto.

8. The work herein required to be done by the said Railroad Company shall be done in such manner as not to unnecessarily obstruct the operation of the railroad, and shall be commenced as soon as practicable, and shall be thenceforth prosecuted with all due diligence to completion.

Sec. 6. Permission and authority are hereby granted to the said Illinois Central Railroad Company, in case of its acceptance of the provisions of this ordinance, to construct, maintain and use, in perpetuity, a railway passenger station house on the public ground adjacent to and west of its right of way, at the foot of Van Buren street projected easterly, three hundred (300) feet in length—that is to say, extending from north to south one hundred and fifty (150) feet on each side of the centre line of Van Buren street projected

easterly—and fifty (50) feet in width. That portion of the said building situated within the north and south lines of Van Buren street projected easterly, shall not be raised so high as to interfere with the construction of a viaduct across the said right of way at that place, and the roofs of the wings shall be so constructed as to admit of their being covered with earth, and when so covered, shall not exceed in elevation twenty-two (22) feet above Chicago city datum. Suitable and convenient entrances to the said station house and exits therefrom may be constructed within the space herein allowed to be occupied by it, and necessary provision may be made in the roof of the building to secure light and ventilation. Pipes connecting with the water main on Michigan avenue may also be laid to furnish water for use in the station house, and also pipes connecting with the gas mains for heating and lighting the same. Proper 3-49-12 connections may also be made with the works or lines of any company furnishing heat, light or power required for use in lighting, heating or ventilating the said building.

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Sec. 7. The said Railroad Company shall have the right to lay and maintain permanently necessary conduits and drainage pipes to secure proper and adequate drainage of its right of way between Randolph street and Lake Park Place, with the privilege of discharging into the lake or the most convenient city sewers.

Sec. 8. The structures heretofore erected by the Illinois Central Railroad Company south of the north line of Lake Park Place projected easterly and in front of its passenger station house, may be permanently maintained by said company; and in case of the acceptance of this ordinance, the said Railroad Company shall have the right to use in perpetuity its grounds and right of way between the north line of Randolph street and the southern boundary of the Lake Park, and the railroad tracks laid or to be laid thereon, for all legitimate railroad purposes, free from all restrictions, except that no building or other structure shall be erected upon that portion of its right of way exceeding in height the top of the wall maintained along the west side thereof, or, when erected at street crossings, the floor of the viaduct or footway there constructed, except by consent of the municipal authorities. But nothing in this section contained shall be held to limit

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or impair the lawful authority vested in the City Council to pass and enforce all proper and reasonable police regulations.

Sec. 9. That the performance of all and singular the conditions and obligations imposed on the said Railroad Company by the provisions of this ordinance, shall be conditional and dependent upon its being permitted to have, exercise and enjoy all the rights and privileges hereinbefore 3-49-13 conferred, and upon its acquiring possession and the unobstructed right to occupy, reclaim and use the grounds hereinbefore authorized to be occupied and used by it, in accordance with the terms and manifest intent of the provisions of this ordinance.

Sec. 10. The said Railroad Company shall relinquish and surrender to the city any riparian or littoral rights it may have incident or appurtenant to the land owned or occupied by it on the shore of the lake between the north line of Lake Park Place projected and the north line of Twelfth street projected, upon the condition, however, that the area covered by water lying east or outside of the parcel of land which the said Railroad Company is authorized to fill in and reclaim for its own use by the fourth section of this ordinance, and between the south line of Lake Park Place projected east, and the said Railroad Company's Thirteenth street pier, shall never be filled in, or access thereto from the waters of the lake obstructed, without the consent of said Railroad Company, excepting only that the said Railroad Company shall, if the requisite permission shall be obtained from the Secretary of War, construct at its own expense a substantial bulkhead or breakwater about fifty feet wide, from the northeast angle of said Thirteenth street pier, in a northerly direction, on the same line as the eastern edge of that pier, for the distance of two hundred and fifty (250) feet, provided, however, that nothing herein contained shall be held to affect the rights of the city of Chicago to exercise its right of eminent domain,—the pier so constructed to be maintained by the said Railroad Company and reserved for its own exclusive use; and also a like substantial bulkhead or breakwater of the same width, from the southeast angle of the ground to be enclosed and filled, as provided in the first section 3-49-14 of this ordinance, in a southerly direction, to a point one hundred (100) feet south of the south line of Lake Park Place projected,—the said last mentioned pier to be maintained by the city of Chicago and held for public use.

Sec. 11. All public work required herein to be done by the said Railroad Company shall be done under the supervision, and to the satisfaction of the Commissioner of Public Works of the city of Chicago. Certified
dence.

Sec. 12. Nothing herein contained shall be held to modify or in any way affect the final decree rendered in the suit between the People of the State of Illinois and the Illinois Central Railroad Company and the City of Chicago, hereinbefore referred to, except to the extent and in respect of the particular matters and things hereinbefore provided for.

Sec. 13. Upon the acceptance of this ordinance by the said Railroad Company (which shall be within thirty days after the passage thereof), a contract embodying the provisions herein contained, and binding the parties to the faithful observance and performance thereof, shall be executed, sealed and delivered by the proper officers of the city and the Railroad Company, which shall be of perpetual obligation.

Sec. 14. This ordinance shall take effect and be in force from and after its passage.

State of Illinois, County of Cook, ss.

I, Jas. R. B. Van Cleave, City Clerk of the City of Chicago, do hereby certify that the above and foregoing is a true and correct copy of an ordinance, concerning 3-49-15 Lake Front question with the Illinois Central Railroad Company, passed by the City Council of the City of Chicago on the 21st day of October, A. D. 1895, and approved by his honor, the Mayor, on the 23d day of October, A. D. 1895, original of which ordinance is on file in this office, and that I am the lawful custodian of the same.

Witness my hand and the corporate seal of said City of Chicago, this 24th day of October, A. D. 1895.

(Signed) JAS. R. B. VAN CLEAVE,

City Clerk.

(Corporate Seal of the City of Chicago.)

attestate of evi-
dence.

3-49-17 ILLINOIS CENTRAL RAILROAD CO.

Acceptance of the Ordinance of the City Council of Chicago,
Passed October 21, 1895, Relating to the Lake-Front.

At a meeting of the Board of Directors of the Illinois Central Railroad Company held on the twenty-eighth day of October, A. D. 1895, the following proceedings were had, that is to say:

" The President submitted an attested copy of an ordinance passed by the City Council of Chicago October 21, 1895, and approved by the Mayor of said city October 23, 1895, duly certified by the City Clerk under the corporate seal of said city,—the said ordinance being as follows:

" Whereas, It was decided and adjudged in and by the final decree of the Circuit Court of the United States for the Northern District of Illinois, entered September 24, 1888, in the original suit of The People of the State of Illinois, upon the relation of the Attorney General of said State, complainants, against the Illinois Central Railroad Company and the City of Chicago, defendants, and the cross suit of the City of Chicago, complainant, against the Illinois Central Railroad Company and The People of the State of Illinois, defendants,—which decree was afterwards, in this respect, affirmed on appeal by the Supreme Court of the United States,—that (saving the rights of the Illinois Central Railroad Company defined in the said decree) the fee of all the public grounds in the city of Chicago lying east of Michigan avenue and between the north line of Randolph street extended to Lake Michigan and the north line of block twenty-three, extended to the lake, in Fractional Section Fifteen Addition to Chicago, including the grounds upon which rest the tracks and breakwater constructed by the Illinois Central Railroad Company, is in the City of Chicago in trust for public use; and that the City of Chicago, as riparian owner of said grounds on the east or Lake Front of said city, between the north line of Randolph street and the north line of said block twenty-three, each of said lines being produced to Lake Michigan, and in virtue of authority to that end con-

"ferred by its charter, has, among other powers, the power
"to establish, construct, erect and keep in repair on said
"Lake Front east of said premises, in such manner as may
"be consistent with law, public landing places, wharves,
"docks and levees, subject, however, in the execution of this
"power, to the authority of the State by legislation to pre-
"scribe the lines beyond which piers, docks, wharves and
"other structures other than those erected by the General
"Government, may not be extended into the waters of the
"harbor that are navigable in fact, and to such supervision
"and control as the United States may rightfully exercise
"in and over said harbor; and,

"Whereas, The public interests imperatively require that
"the power thus vested in the City of Chicago should now be
"exercised, and permission has been obtained from the Sec-
"retary of War, according to the form of the statute of the
"United States in such case made and provided, to fill in a
"portion of the outer harbor at Chicago, so far out as the
"harbor line established by the Secretary of War September
"22, 1890, upon the following conditions:

"1. That there shall be constructed along the dock line,
"entirely closing the area to be filled, before any deposit
"whatever may be made, a substantial and tight bulkhead or
"retaining wall, extending not less than six feet above ex-
"treme low water in Lake Michigan, so constructed that it
"shall allow dredging to a depth of twenty (20) feet
"3-49-19" against it, and shall be of sufficient mass to act as a
"retaining wall against a back filling reaching to its
"top.

"2. That not more than two openings, one hundred feet
"in width each, shall be temporarily left in this retaining
"wall or bulkhead for the passage of craft transporting the
"material for filling or deposit, which openings shall be
"closed upon notification by the Secretary of War.

"3. That the plans of such bulkhead or retaining wall
"shall be submitted to and receive the approval of the Secre-
"tary of War, and the structure be built in accordance with
"such approved designs.

"4. That the work so permitted to be done shall be sub-

Certificate of evidence.

"ject to the supervision and approval of the Engineer Officer
"of the United States Army in charge of the locality; and,

"Whereas, It is necessary to the successful prosecution of
"the said work and to secure safe and convenient access and
"egress to and from the grounds proposed to be filled and
"reclaimed, lying east of the Illinois Central Railroad, that
"an amicable arrangement and agreement be made by and
"between the City of Chicago and the Illinois Central Rail-
"road Company; and,

"Whereas, The Common Council of the City of Chicago,
"and the Illinois Central Railroad Company, entered into a
"contract, bearing date March 28, 1853, which was duly exe-
"cuted under their respective seals, by which, among other
"things, the City of Chicago for valuable considerations
"covenanted and agreed that said Railroad Company might
"enter upon and use in perpetuity for its said line of road,
"and for works necessary to protect the same from the Lake,
"a width of 300 feet from the southern boundary of said
"public ground, near Twelfth street, to the northern line of
"Randolph street, only a part of which has been
3-49-20 "occupied by said Company; and it is claimed by
"said Railroad Company that the City of Chicago is
"bound in good faith to carry out said covenant, by giving
"the license mentioned in the decree of the Court, in the suit
"above referred to, which shall authorize said Company to
"occupy the whole of said 300 foot strip; and,

"Whereas, The parties to said contract will each be better
"accommodated by an arrangement permitting the said
"Railroad Company to appropriate and occupy for railroad
"purposes certain parcels of ground at each end of the said
"three hundred foot strip, instead of the full width of said
"strip throughout the entire length thereof; and

"Whereas, It is understood that the Illinois Central Rail-
"road Company is willing, for the considerations and on the
"terms and conditions hereinafter set forth, to comply with
"the provisions of this ordinance, so far as they relate to any
"matters or things required of or to be undertaken, done or
"performed by said Company; therefore

"Be it Ordained by the City Council of the City of Chicago: Certified
true and
correct.

"Section 1. That for the purpose of providing suitable
"public landing places for steam vessels and other craft em-
"ployed in navigation on Lake Michigan, the public grounds
"of the City of Chicago, known as Lake Park, lying east of
"Michigan avenue and between the south line of Randolph
"street and the north line of Lake Park place (formerly
"known as Park row) shall be extended east of the tracks
"and grounds of the Illinois Central Railroad Company, by
"enclosing and filling all that space in the shallow waters of
"Lake Michigan within the Outer Harbor, so called, includ-
"ed within the following boundary lines, to wit: The south
"line of Randolph street produced, on the north; the Har-
"bor line established by the Secretary of War, Sep-
"tember 22, 1890, on the east; the south line of
"Lake Park place produced, on the south; and the
"present westerly shore line of the said Outer Harbor on the
"west.

"Sec. 2. Permission and authority are hereby granted to
"the said Illinois Central Railroad Company to enter upon
"and use in perpetuity for railroad purposes all that part of
"the land to be filled and reclaimed, as provided in the pre-
"ceding section, which lies between its present works and
"grounds on the lake shore and the following described line,
"that is to say: A line drawn from a point on the present
"shore or dock line seventy (70) feet north of the north line
"of Adams street produced east, and six hundred (600) feet
"east of the west line of Michigan avenue, extending thence
"northeasterly, on a six degree (6°) curve to the right, about
"five hundred and twenty-five (525) feet, to a point seven
"hundred and fifty-one (751) feet east of the west line of
"Michigan avenue; thence, on a tangent making an angle of
"thirty-one degrees and thirty minutes ($31^{\circ} 30'$) with a line
"parallel to the west line of Michigan avenue, nine hundred
"and three (903) feet, to a point twelve hundred and thirty
"one (1231) feet east of the west line of Michigan avenue; thence,
"on a six degree (6°) curve to the right, about five hundred
"and fifty (550) feet, to a point in the present dock line on
"or near the south line of Randolph street produced, sixteen
"hundred and twenty (1620) feet east of the west line of
"Michigan avenue: Provided, however, that the said Rail-
"road Company shall either pay to the city the cost of filling

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" the said parcel of land or shall do the work of filling at its own expense.

" Sec. 3. Permission and authority are also hereby granted to the said Illinois Central Railroad Company to enter upon and use in perpetuity for railroad purposes all that part of the land to be filled and reclaimed as provided in the first section of this ordinance, which lies between 3-49-22 " its present works and grounds on the lake shore and the following described line, that is to say: A line drawn from a point on the present shore or dock line seventy-four (74) feet north of the north line of Eldredge court produced east and six hundred (600) feet east of the west line of Michigan avenue, extending thence southeasterly, on a four degree (4°) curve to the left, about two hundred and fifty (250) feet, to a point six hundred and twenty-two (622) feet east of the west line of Michigan avenue; thence, on a tangent to the last mentioned curve making an angle of ten degrees (10°) with a line parallel to the west line of Michigan avenue, about seven hundred and ninety (790) feet, to a point in the south line of Lake Park place, produced easterly, seven hundred and sixty-one (761) feet east of the west line of Michigan avenue: Provided, however, that the said Railroad Company shall either pay to the city the cost of filling the said parcel of land, or shall do the work of filling at its own expense.

" Sec. 4. Permission and authority are also hereby granted to the said Illinois Central Railroad Company to enter upon, fill in, appropriate and use in perpetuity for railroad purposes all that certain parcel of land now covered by the shallow waters of the lake within the said Outer Harbor, which lies between the present shore line and the following described line, to wit: A straight line drawn from a point in the south line of Lake Park place, produced easterly, seven hundred and sixty-one (761) feet east of the west line of Michigan avenue, extending thence southeasterly, making an angle of forty-five degrees (45°) with a line parallel to the west line of Michigan avenue, about seven hundred and seventy (770) feet, to a point in the north line of the Illinois Central Railroad Company's Thirteenth 3-49-23 " Street Pier, thirteen hundred and twenty (1320) feet east of the west line of Michigan avenue: Provided, however, that the work of filling the said parcel of

"land shall be done by the said Railroad Company at its own
 "expense. Certificate
dence.

"Sec. 5. The permission, rights and authority herein
 "granted to the said Illinois Central Railroad Company, are
 "upon the express conditions following, that is to say:

"1. The said Railroad Company shall, at its own expense,
 "cause that section of its road-bed, lying between the follow-
 "ing described east and west lines, namely, a line two hun-
 "dred (200) feet north of the north line of Peck court, pro-
 "jected east and parallel thereto, and the north line of Mon-
 "roe street projected east, to be depressed in such manner
 "that the base of the rails of the west and east tracks laid
 "thereon shall not exceed in elevation six (6) feet above
 "Chicago city datum; and the space between those two
 "tracks shall be crowned sufficiently to afford proper drain-
 "age, but the base of the rails of the intermediate tracks
 "there laid shall not exceed in elevation seven (7) feet above
 "Chicago city datum. North and south of the two lines
 "above described, the road-bed shall be so depressed and ad-
 "justed that the tracks laid thereon may be connected by
 "suitable gradients with the tracks laid or to be laid north
 "of the south line of Randolph street projected east, and
 "south of the north line of Lake Park place projected east.

"2. The said Railroad Company shall, at its own expense,
 "cause two retaining walls to be constructed of mason work,
 "one on the west side, and the other on the east side, of its
 "roadway and grounds between Randolph street and Lake
 "Park place, with suitable parapet walls or fences thereon, as
 "may be approved or directed by the Commissioner
 "3-49-23" of Public Works of said City, to guard the public
 "from danger—the walls to be so placed that the
 "east face of the retaining wall on the west side of the said
 "Railroad Company's right of way, shall be on a straight line
 "extending northerly from a point in the north line of Lake
 "Park place four hundred (400) feet east of the west line of
 "Michigan avenue, parallel to said avenue, to a point two
 "hundred feet south of the south line of Randolph street ex-
 "tended; thence northwesterly, in a straight line, to a point
 "in the north line of Randolph street one hundred (100) feet
 "west of the line first above described extended northerly to
 "the north line of Randolph street extended; and the west

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“ face of the retaining wall shall be on the following described
 “ line: Commencing at a point in the south line of Lake
 “ Park place projected east seven hundred and sixty-one
 “ (761) feet east of the west line of Michigan avenue, extend-
 “ ing thence northwesterly, in a straight line, seven hundred
 “ and ninety (790) feet, to a point six hundred and twenty-
 “ two (622) feet east of the west line of Michigan avenue;
 “ thence, on a four degree (4°) curve to the right, to a point
 “ seventy-four (74) feet north of the north line of
 “ Eldredge court produced east and six hundred (600) feet
 “ east of the west line of Michigan avenue; thence, on a
 “ straight line six hundred (600) feet east of the west line of
 “ Michigan avenue and parallel thereto, to a point seventy
 “ (70) feet north of the north line of Adams street produced
 “ east; thence, on a six degree (6°) curve to the right, about
 “ five hundred and twenty-five (525) feet, to a point seven
 “ hundred and fifty-one (751) feet east of the west line of
 “ Michigan avenue; thence, on a tangent making an angle
 “ of thirty-one degrees and thirty minutes ($31^{\circ} 30'$) with a
 “ line parallel to Michigan avenue, nine hundred and three
 “ (903) feet, to a point twelve hundred and thirty
 3-49-25 “ (1230) feet east of the west line of Michigan avenue;
 “ thence on a six degree (6°) curve to the right, to
 “ its intersection with the north line of Randolph street ex-
 “ tended. The said walls shall be raised to an elevation of
 “ twenty-two feet above Chicago city datum, and shall be of
 “ sufficient strength and solidity to serve permanently the
 “ purpose for which they are to be erected.

“ 3. The said Railroad Company shall, at its own expense,
 “ cause viaducts to be constructed across its tracks and right
 “ of way in line with the projection eastward of not more
 “ than four streets between Randolph street and Lake Park
 “ place, to be designated by the city—each of said viaducts
 “ to have a carriage-way and two foot-ways. It shall also,
 “ whenever directed so to do by the Commissioner of Public
 “ Works of said city, cause a foot-way to be constructed at
 “ its own expense across its tracks and right of way, in the
 “ line of any other street or streets between Randolph street
 “ and Lake Park place. The superstructure of each of said
 “ viaducts and foot-ways shall be of metal, and the lowest
 “ point of such superstructure shall not be less than sixteen
 “ (16) feet in the clear above the railroad tracks.

Certified
true and
correct.

" 4. The said Railroad Company shall also, at its own expense, cause the Randolph street viaduct to be altered and extended so as to furnish access to the new made public ground east of the railroad, and also to the grounds of the Railroad Company north of Randolph street, the said viaduct as so altered and extended to be maintained by the said Railroad Company at its own cost and expense.

" 5. The said Railroad Company shall also, at its own expense, cause a substantial and tight bulkhead or retaining wall to be constructed of timber, earth and loose stone, along the eastern dock line, and also along the southerly line, of the area to be enclosed and filled, as provided in the first section of this ordinance, conformably to the requirements of the Engineer Office of the United States Army having supervision of the work.

" 6. The said Railroad Company shall furnish and deliver on the ground, material to the extent of two hundred thousand (200,000) cubic yards, if so much shall be needed for the purpose, to fill in the Lake Front Park lying between said company's right of way and Michigan avenue, to the height of twenty-two feet above Chicago city datum along the west side of the wall to be erected by said company on the westerly side of said right of way between Randolph street and Lake Park place and immediately adjacent thereto, and to raise the ground in the rest of said park, or so much thereof as shall be deemed necessary, so that the surface shall have a regular slope westward from the elevation on the westerly side of said wall down to the grade of Michigan avenue. To facilitate the delivery of such material, the said company shall have the right to lay temporary railroad tracks in said park, which shall be removed as soon as the delivery is completed.

" 7. The said Railroad Company shall relinquish and surrender to the city the two filled projections into the lake beyond the east line of its right of way at the foot of Peck court and Harrison street, containing altogether about thirty-four one-hundredths (34-100) of an acre; and also any land there may be east or outside of that part of its right of way, two hundred feet in width, which lies south of a line drawn across the said right of way seventy feet north of the north line of Adams street produced easterly

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" and parallel thereto, and north of a line drawn across the
 " said right of way seventy-four (74) feet north of
 3-49-27 " the north line of Eldredge court produced easterly
 and parallel thereto.

" 8. The work herein required to be done by the said Railroad Company shall be done in such manner as not to unnecessarily obstruct the operation of the railroad, and shall be commenced as soon as practicable, and shall be thenceforth prosecuted with all due diligence to completion.

" Sec. 6. Permission and authority are hereby granted to the said Illinois Central Railroad Company, in case of its acceptance of the provisions of this ordinance, to construct, maintain and use, in perpetuity, a Railway Passenger Station House on the public ground adjacent to and west of its right of way, at the foot of Van Buren street to project easterly, three hundred (300) feet in length—that is to say, extending from north to south one hundred and fifty (150) feet on each side of the centre line of Van Buren street projected easterly—and fifty (50) feet in width. That portion of the said building situated within the north and south lines of Van Buren street projected easterly, shall not be raised so high as to interfere with the construction of a viaduct across the said right of way at that place, and the roofs of the wings shall be so constructed as to admit of their being covered with earth, and when so covered, shall not exceed in elevation twenty-two (22) feet above Chicago city datum. Suitable and convenient entrances to the said station house and exits therefrom may be constructed within the space herein allowed to be occupied by it, and necessary provision may be made in the roof of the building to secure light and ventilation. Pipes connecting with the water main on Michigan avenue may also be laid to furnish water for use in the station house, and also pipes connecting with the gas mains for heating and lighting the same. Proper connections may also be made
 3-49-28 " with the works or lines of any company furnishing heat, light or power required for use in lighting, heating or ventilating the said building.

" Sec. 7. The said Railroad Company shall have the right to lay and maintain permanently necessary conduits and drainage pipes to secure proper and adequate drainage

" of its right of way between Randolph street and Lake Park
" Place, with the privilege of discharging into the lake or
" the most convenient city sewers.

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dence.

" Sec. 8. The structures heretofore erected by the Illi-
" nois Central Railroad Company south of the north line of
" Lake Park Place projected easterly and in front of its pas-
" senger station house, may be permanently maintained by
" said company; and in case of the acceptance of this ordi-
" nance, the said Railroad Company shall have the right to
" use in perpetuity its grounds and right of way between the
" north line of Randolph street and the southern boundary
" of the Lake Park, and the railroad tracks laid or to be laid
" thereon, for all legitimate railroad purposes, free from all
" restrictions, except that no building or other structure
" shall be erected upon that portion of its right of way ex-
" ceeding in height the top of the wall maintained along the
" west side thereof, or, when erected at street crossings, the
" floor of the viaduct or footway there constructed, except
" by consent of the municipal authorities. But nothing in
" this section contained shall be held to limit or impair the
" lawful authority vested in the City Council to pass and
" enforce all proper and reasonable police regulations.

" Sec. 9. That the performance of all and singular the
" conditions and obligations imposed on the said Railroad
" Company by the provisions of this ordinance, shall be con-
" ditional and dependent upon its being permitted to have,
" exercise and enjoy all the rights and privileges hereinbefore
" conferred, and upon its acquiring possession and
3-49-29 " the unobstructed right to occupy, reclaim and use
" the grounds hereinbefore authorized to be occu-
" pied and used by it, in accordance with the terms and mani-
" fest intent of the provisions of this ordinance.

" Sec. 10. The said Railroad Company shall relinquish and
" surrender to the city any riparian or littoral rights it may
" have incident or appurtenant to the land owned or occupied
" by it on the shore of the lake between the north line of Lake
" Park Place projected and the north line of Twelfth street
" projected, upon the condition, however, that the area cov-
" ered by water lying east or outside of the parcel of land
" which the said Railroad Company is authorized to fill in and
" reclaim for its own use by the fourth section of this or-

Certificate of evidence.

“dinance, and between the south line of Lake Park Place
 “projected east, and the said Railroad Company’s Thirteenth
 “Street Pier, shall never be filled in, or access thereto from
 “the waters of the lake obstructed, without the consent of
 “said Railroad Company, excepting only that the said Railroad Company shall, if the requisite permission therefor
 “shall be obtained from the Secretary of War, construct at
 “its own expense a substantial bulkhead or breakwater about
 “fifty feet wide, from the northeast angle of said Thirteenth
 “Street Pier, in a northerly direction, on the same line as the
 “eastern edge of that pier, for the distance of two hundred
 “and fifty (250) feet, provided, however, that nothing herein
 “contained shall be held to affect the rights of the City of
 “Chicago to exercise its rights of eminent domain,—the pier
 “so constructed to be maintained by the said Railroad Company and reserved for its own exclusive use; and also a like
 “substantial bulkhead or breakwater of the same width, from
 “the southeast angle of the ground to be enclosed and filled,
 “as provided in the first section of this ordinance,
 3-49-30 “in a southerly direction, to a point one hundred
 “(100) feet south of the south line of Lake Park
 “Place projected,—the said last mentioned pier to be maintained by the City of Chicago and held for public use.

“Sec. 11. All public work herein required to be done by
 “the said Railroad Company shall be done under the supervision, and to the satisfaction of the Commissioner of Public Works of the City of Chicago.

“Sec. 12. Nothing herein contained shall be held to modify or in any way affect the final decree rendered in the suit
 “between the People of the State of Illinois and the Illinois
 “Central Railroad Company and the City of Chicago, hereinbefore referred to, except to the extent and in respect of
 “the particular matters and things hereinbefore provided
 “for.

“Sec. 13. Upon the acceptance of this ordinance by the
 “said Railroad Company (which shall be within thirty days
 “after the passage thereof), a contract embodying the provisions herein contained, and binding the parties to the
 “faithful observance and performance thereof, shall be executed, sealed and delivered by the proper officers of the

Acceptance of Ordinance.

1039

"city and the Railroad Company, which shall be of perpetual
 "obligation. Certifica
 dence.

"Sec. 14. This ordinance shall take effect and be in force
 "from and after its passage.

"State of Illinois, County of Cook, ss.

"I, Jas. R. B. Van Cleave, City Clerk of the City of Chi-
 "cago, do hereby certify that the above and foregoing is a
 "true and correct copy of an ordinance, concerning
 3-49-31 "Lake Front question with the Illinois Central Rail-
 "road Company, passed by the City Council of the
 "City of Chicago on the 21st day of October, A. D. 1895,
 "and approved by his honor, the Mayor on the 23rd day of
 "October, A. D. 1895, original of which ordinance is on file
 "in this office, and that I am the lawful custodian of the
 "same.

"Witness my hand and the corporate seal of said City of
 "Chicago, this 24th day of October, A. D. 1895."

(Signed) "JAS. R. B. VAN CLEAVE."

"City Clerk."

[Corporate Seal of the City of Chicago.]

"Whereupon, the said ordinance having been read and
 "considered, it was, on motion duly made and seconded.

"Resolved, That the Illinois Central Railroad Company do
 "hereby accept the said ordinance; and that the President
 "and Secretary of said Company be, and they are hereby,
 "empowered and directed to execute in its behalf, under its
 "corporate seal, a contract to be drawn in conformity to the
 "requirements of the 13th section of the said ordinance, em-
 "bodying the provisions contained in said ordinance, and
 "binding the parties to the faithful observance and perform-
 "ance thereof, which shall be of perpetual obligation.

"On motion the Secretary was directed to transmit to the
 "Mayor of the City of Chicago a certified copy of the pro-
 "ceedings of the Board in relation to the acceptance of the
 "foregoing ordinance, and to the City Clerk of said city a
 "like certified copy of the said proceedings to be filed for
 "record in his office."

certificate of evidence.

3-49-32 State of Illinois, County of Cook, ss.

I, Alexander G. Hackstaff, Secretary of the Illinois Central Railroad Company, do hereby certify the above and foregoing to be a true, perfect and correct copy of the proceedings had and taken by the Board of Directors of the Illinois Central Railroad Company, in relation to the acceptance of the ordinance herein referred to, at a meeting of said Board holden on the 28th day of October, A. D. 1895, as the same appear in the official record of said meeting in my custody.

Given under my hand and the corporate seal of said Company this _____ day of December, A. D. 1895.

ALEXANDER G. HACKSTAFF,
Secretary.

[Corporate Seal of I. C. R. R. Co.]

3-49-33 ILLINOIS CENTRAL RAILROAD CO.

AND

CITY OF CHICAGO.

Agreement in relation to Lake Front Park, Chicago, Ill.,

20th Nov., 1895.

Agreement made this twentieth day of November, in the year of our Lord one thousand eight hundred and ninety-five, between the City of Chicago and the Illinois Central Railroad Company:

Whereas, An ordinance was duly passed by the City Council of the City of Chicago, in the State of Illinois, on the twenty-first day of October A. D. 1895, and approved by the Mayor of said city on the twenty-third day of October A. D. 1895, in the words and figures hereinafter set forth;

And whereas, At a meeting of the Board of Directors of the said Illinois Central Railroad Company held on the twen-

ty-eighth day of October A. D. 1895, the following proceedings were had, that is to say: Certificate
dence.

" President submitted an attested copy of an ordinance
 " passed by the City Council of Chicago October 21,
 3-49-34 " 1895, and approved by the Mayor of said city Oc-
 " tober 23, 1895, duly certified by the City Clerk
 " under the corporate seal of said city,—the said ordinance
 " being as follows:

" Whereas, It was decided and adjudged in and by the final
 " decree of the Circuit Court of the United States for the
 " Northern District of Illinois, entered September 24, 1888,
 " in the original suit of The People of the State of Illinois,
 " upon the relation of the Attorney General of said State,
 " complainants, against the Illinois Central Railroad Com-
 " pany and the City of Chicago, defendants, and the cross
 " suit of the City of Chicago, complainant, against the Illi-
 " nois Central Railroad Company and The People of the State
 " of Illinois, defendants,—which decree was afterwards, in
 " this respect, affirmed on appeal by the Supreme Court of
 " the United States,—that (saving the rights of the Illinois
 " Central Railroad Company defined in the said decree) the
 " fee of all the public grounds in the city of Chicago lying
 " east of Michigan Avenue and between the north line of
 " Randolph Street extended to Lake Michigan and the north
 " line of block twenty-three, extended to the lake, in Frac-
 " tional Section Fifteen Addition to Chicago, including the
 " grounds upon which rest the tracks and breakwater con-
 " structed by the Illinois Central Railroad Company, is in
 " the City of Chicago in trust for public use; and that the
 " City of Chicago, as riparian owner of said grounds on the
 " east or Lake Front of said city, between the north line of
 " Randolph Street and the north line of said block twenty-
 " three, each of said lines being produced to Lake Michigan,
 " and in virtue of authority to that end conferred by its char-
 " ter, has, among other powers, the power to establish, con-
 " struct, erect and keep in repair on said Lake Front
 3-49-35 " east of said premises, in such manner as may be
 " consistent with law, public landing places,
 " wharves, docks and levees, subject, however, in the execu-
 " tion of this power, to the authority of the State by legis-
 " lation to prescribe the lines beyond which piers, docks,
 " wharves and other structures other than those erected by

Certificate of evidence.

" the General Government, may not be extended into the
" waters of the harbor that are navigable in fact, and to such
" supervision and control as the United States may right-
" fully exercise in and over said harbor; and

" Whereas, The public interests imperatively require that
" the powers thus vested in the City of Chicago should now
" be exercised, and permission has been obtained from the
" Secretary of War, according to the form of the statute of
" the United States in such case made and provided, to fill
" in a portion of the outer harbor at Chicago, as far out as
" the harbor line established by the Secretary of War Sep-
" tember 22, 1890, upon the following conditions:

" 1. That there shall be constructed along the dock line,
" entirely closing the area to be filled, before any deposit
" whatever may be made, a substantial and tight bulkhead
" or retaining wall, extending not less than six feet above
" extreme low water in Lake Michigan, so constructed that
" it shall allow dredging to a depth of twenty (20) feet
" against it, and shall be of sufficient mass to act as a retain-
" ing wall against a back filling reaching to its top.

" 2. That not more than two openings, one hundred feet
" in width each, shall be temporarily left in this retaining
" wall or bulkhead for the passage of craft transporting the
" material for filling or deposit, which openings shall be
" closed upon notification by the Secretary of War.

" 3. That the plans of such bulkhead or retaining wall
" shall be submitted to and receive the approval of
3-49-36 " the Secretary of War, and the structure be built
" in accordance with such approved designs.

" 4. That the work so permitted to be done shall be sub-
" ject to the supervision and approval of the Engineer Of-
" ficer of the United States Army in charge of the locality;
" and

" Whereas, It is necessary to the successful prosecution of
" the said work and to secure safe and convenient access and
" egress to and from the grounds proposed to be filled and
" reclaimed, lying east of the Illinois Central Railroad, that
" an amicable arrangement and agreement be made by and

"between the City of Chicago, and the Illinois Central Railroad Company; and

Certification.

"Whereas, The Common Council of the City of Chicago, and the Illinois Central Railroad Company, entered into a contract, bearing date March 28, 1853, which was duly executed under their respective seals, by which, among other things, the City of Chicago for valuable considerations covenanted and agreed that said Railroad Company might enter upon and use in perpetuity for its said line of road, and for works necessary to protect the same from the Lake, a width of 300 feet from the southern boundary of said public ground, near Twelfth street, to the northern line of Randolph street, only a part of which has been occupied by said Company; and it is claimed by said Railroad Company that the City of Chicago, is bound in good faith to carry out said covenant, by giving the license mentioned in the decree of the Court, in the suit above referred to, which shall authorize said Company to occupy the whole of said 300 foot strip; and

"Whereas, The parties to said contract will each be better accommodated by an arrangement permitting the said Railroad Company to appropriate and occupy for 3-49-37 railroad purposes certain parcels of ground at each end of the said three hundred foot strip, instead of the full width of the said strip throughout the entire length thereof; and

"Whereas, It is understood that the Illinois Central Railroad Company is willing, for the consideration and on the terms and conditions hereinafter set forth, to comply with the provisions of this ordinance, so far as they relate to any matters or things required of, or to be undertaken, done or performed by said Company; therefore

"Be it ordained by the City Council of the City of Chicago:

"Section 1. That for the purpose of providing suitable public landing places for steam vessels and other craft employed in navigation on Lake Michigan, the public grounds of the City of Chicago, known as Lake Park, lying east of Michigan Avenue and between the south line of Randolph

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" street and the north line of Lake Park Place (formerly
" known as Park Row) shall be extended east of the tracks
" and grounds of the Illinois Central Railroad Company, by
" enclosing and filling all that space in the shallow waters of
" Lake Michigan with the Outer Harbor, so called, in-
" cluded within the following boundary lines, to-wit: The
" south line of Randolph street produced, on the north; the
" Harbor line established by the Secretary of War, Septem-
" ber 22, 1890, on the east; the south line of Lake Park Place
" produced, on the south; and the present westerly shore line
" of the said Outer Harbor on the west.

" Sec. 2. Permission and authority are hereby granted to
" the said Illinois Central Railroad Company to enter upon
" and use in perpetuity for railroad purposes all that part of
" the land to be filled and reclaimed, as provided in
3-49-38 " preceding section, which lies between its present
" works and grounds on the lake shore and the fol-
" lowing described line, that is to say: A line drawn from a
" point on the present shore or dock line seventy (70) feet
" north of the north line of Adams street produced east, and
" six hundred (600) feet east of the west line of Michigan
" avenue, extending thence northeasterly, on a six degree
" (6°) curve to the right, about five hundred and twen-
" ty-five (525) feet, to a point seven hundred and fifty-one
" (751) feet east of the west line of Michigan Avenue; thence,
" on a tangent making an angle of thirty-one degrees and
" thirty minutes ($31^{\circ} 30'$) with a line parallel to
" the west line of Michigan Avenue, nine hundred and
" three (903) feet, to a point twelve hundred and thirty (1230)
" feet east of the west line of Michigan Avenue; thence, on
" a six degree (6°) curve to the right, about five hundred
" and fifty (550) feet, to a point in the present dock line on
" or near the south line to Randolph street produced, sixteen
" hundred and twenty (1620) feet east of the west line of
" Michigan Avenue: Provided, however, that the said Rail-
" road Company shall either pay to the city the cost of filling
" the said parcel of land or shall do the work of filling at its
" own expense.

" Sec. 3. Permission and authority are also hereby grant-
" ed to the said Illinois Central Railroad Company to enter
" upon and use in perpetuity for railroad purposes all that
" part of the land to be filled and reclaimed as provided in

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"the first section of this ordinance, which lies between its
 "present works and grounds on the lake shore and the fol-
 "lowing described line, that is to say: A line drawn from a
 "point on the present shore or dock line seventy-four (74)
 "feet north of the north line of Eldredge Court produced
 "east and six hundred (600) feet east of the west line of
 "Michigan Avenue, extending thence southeasterly, on a
 "four degree (4°) curve to the left, about two
 "349-39 hundred and fifty (250) feet, to a point six hun-
 "dred and twenty-two (622) feet east of the west
 "line of Michigan Avenue; thence, on a tangent to the last
 "mentioned curve making an angle of ten degrees (10°)
 "with a line parallel to the west line of Michigan Ave-
 "nue, about seven hundred and ninety (790) feet, to a point
 "in the south line of Lake Park Place, produced easterly,
 "seven hundred and sixty-one (761) feet east of the west
 "line of Michigan Avenue: Provided, however, that the said
 "Railroad Company shall either pay to the city the cost of
 "filling the said parcel of land, or shall do the work of filling
 "at its own expense.

"Sec. 4. Permission and authority are also hereby grant-
 "ed to the said Illinois Central Railroad Company to enter
 "upon, fill in, appropriate and use in perpetuity for railroad
 "purposes all that certain parcel of land now covered by the
 "shallow waters of the lake within the said Outer Harbor,
 "which lies between the present shore line and the following
 "described line, to-wit: A straight line drawn from a point
 "in the south line of Lake Park Place, produced easterly,
 "seven hundred and sixty-one (761) feet east of the west line
 "of Michigan Avenue, extending thence southeasterly, mak-
 "ing an angle of forty-five degrees (45°) with a line
 "parallel to the west line of Michigan Avenue, about seven
 "hundred and seventy (770) feet, to a point in the north line
 "of the Illinois Central Railroad Company's Thirteenth
 "Street Pier, thirteen hundred and twenty (1320) feet east of
 "the west line of Michigan Avenue: Provided, however,
 "that the work of filling the said parcel of land shall be done
 "by the said Railroad Company at its own expense.

"Sec. 5. The permission, rights and authority herein
 "granted to the said Illinois Central Railroad Company,
 "are upon the express conditions following, that is to
 "say:

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3-49-40 " 1. The said Railroad Company shall, at its own expense, cause that section of its road-bed, lying " between the following described east and west lines, namely, a line two hundred (200) feet north of the north line of Peck Court, projected east and parallel thereto, and the north line of Monroe street projected east, to be depressed in such manner that the base of the rails of the west and east tracks laid thereon shall not exceed in elevation six (6) feet above Chicago city datum; and the space between those two tracks shall be crowned sufficiently to afford drainage, but the base of the rails of the intermediate tracks there laid shall not exceed in elevation seven (7) feet above Chicago city datum. North and south of the two lines above described, the road-bed shall be so depressed and adjusted that the tracks laid thereon may be connected by suitable gradients with the tracks laid or to be laid north of the south line of Randolph street projected east, and south of the north line of Lake Park Place projected east.

" 2. The said Railroad Company shall, at its own expense, cause two retaining walls to be constructed of mason work, one on the west side, and the other on the east side, of its roadway and grounds between Randolph street and Lake Park Place, with suitable parapet walls or fences thereon, as may be approved or directed by the Commissioner of Public Works of said City, to guard the public from danger,—the walls to be so placed that the east face of the retaining wall on the west side of the said Railroad Company's right of way, shall be on a straight line extending northerly from a point in the north line of Lake Park Place four hundred (400) feet east of the west line of Michigan Avenue, parallel to said Avenue, to a point two hundred feet south of the south line of Randolph street extended; thence northwesterly, in a straight line, to a point in the north line of Randolph street one hundred (100) feet west of the line first above described extended northerly to the north line of Randolph street extended; and the west face of the east retaining wall shall be on the following described line: Commencing at a point in the south line of Lake Park Place projected east seven hundred and sixty-one (761) feet east of the west line of Michigan Avenue, extending thence northwesterly, in a straight line, seven hundred and ninety (790) feet, to a point six hundred and twenty-two (622) feet east of the west line of Michigan Avenue; thence, on a four degree (4°)

"curve to the right, to a point seventy-four (74) feet north
 "of the north line of Eldredge Court produced east and six
 "hundred (600) feet east of the west line of Michigan Ave-
 "nue; thence, on a straight line six hundred (600) feet east
 "of the west line of Michigan Avenue and parallel thereto,
 "to a point seventy (70) feet north of the north line of Adams
 "street produced east; thence, on a six degree (6°)
 "curve to the right, about five hundred and twenty-five (525)
 "feet, to a point seven hundred and fifty-one (751) feet east
 "of the west line of Michigan Avenue; thence, on a tangent
 "making an angle of thirty-one degrees and thirty minutes
 "($31^{\circ} 30'$) with a line parallel to Michigan Avenue,
 "nine hundred and three (903) feet, to a point
 "twelve hundred and thirty (1230) feet east of the west line
 "of Michigan Avenue; thence on a six degree (6°)
 "curve to the right, to its intersection with the north line of
 "Randolph street extended. The said walls shall be raised
 "to an elevation of twenty-two feet above Chicago city
 "datum, and shall be of sufficient strength and solidity to
 "serve permanently for the purpose for which they are to be
 "erected.

"3. The said Railroad Company shall, at its own ex-
 "pense, cause viaducts to be constructed across its
 3-49-42 "tracks and right of way in line with the projection
 "eastward of not more than four streets between
 "Randolph street and Lake Park Place, to be designated by
 "the city,—each of said viaducts to have a carriage-way and
 "two foot-ways. It shall also, whenever directed so to do
 "by the Commissioner of Public Works of said city, cause a
 "foot-way to be constructed at its own expense across its
 "tracks and right of way, in the line of any other street or
 "streets between Randolph street and Lake Park Place. The
 "superstructure of each of said viaducts and foot-ways shall
 "be of metal, and the lowest point of such superstructure
 "shall not be less than sixteen (16) feet in the clear above the
 "railroad tracks.

"4. The said Railroad Company shall also, at its own
 "expense, cause the Randolph street viaduct to be altered
 "and extended so as to furnish access to the new made pub-
 "lic ground east of the railroad, and also to the grounds of
 "the Railroad Company north of Randolph street, the said
 "viaduct as so altered and extended to be maintained by the
 "said Railroad Company at its own cost and expense.

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" 5. The said Railroad Company shall also, at its own expense, cause a substantial and tight bulkhead or retaining wall to be constructed of timber, earth and loose stone, along the eastern dock line, and also along the southerly line, of the area to be enclosed and filled, as provided in the first section of this ordinance, conformably to the requirements of the Engineer Office of the United States Army having supervision of the work.

" 6. The said Railroad Company shall furnish and deliver on the ground, material to the extent of two hundred thousand (200,000) cubic yards, if so much shall be needed for the purpose, to fill in the Lake Front Park lying 3-49-43 " between said company's right of way and Michigan Avenue, to the height of twenty-two feet above Chicago city datum along the west side of the wall to be erected by said company on the westerly side of said right of way between Randolph street and Lake Park Place and immediately adjacent thereto, and to raise the ground in the rest of said park, or so much thereof as shall be deemed necessary, so that the surface shall have a regular slope westward from the elevation on the westerly side of said wall down to the grade of Michigan Avenue. To facilitate the delivery of such material, the said company shall have the right to lay temporary railroad tracks in said park, which shall be removed as soon as the delivery is completed.

" 7. The said Railroad Company shall relinquish and surrender to the city the two filled projections into the lake beyond the east line of its right of way at the foot of Peck Court and Harrison street, containing altogether about thirty-four one hundredths (34-100) of an acre; and also any land there may be east or outside of that part of its right of way, two hundred feet in width, which lies south of a line drawn across the said right of way seventy feet north of the north line of Adams street produced easterly and parallel thereto, and north of a line drawn across the said right of way seventy-four (74) feet north of the north line of Eldredge Court produced easterly and parallel thereto.

" 8. The work herein required to be done by the said Railroad Company shall be done in such manner as not to unnecessarily obstruct the operation of the railroad, and

"shall be commenced as soon as practicable, and shall be
"thenceforth prosecuted with all due diligence to comple-
"tion.

Certificate
dence.

"Sec. 6. Permission and authority are hereby granted
"to the said Illinois Central Railroad Company, in
3-49-44 "case of its acceptance of the provisions of this or-
"dinance, to construct, maintain and use, in per-
"petuity, a Railway Passenger Station House on the public
"ground adjacent to and west of its right of way, at the foot
"of Van Buren street projected easterly, three hundred (300)
"feet in length—that is to say, extending from north to
"south one hundred and fifty (150) feet on each side of the
"centre line of Van Buren street projected easterly—and
"fifty (50) feet in width. That portion of the said building
"situated within the north and south lines of Van Buren
"street projected easterly, shall not be raised so high as to in-
"terfere with the construction of a viaduct across the said
"right of way at that place, and the roofs of the wings shall
"be so constructed as to admit of their being covered with
"earth, and when so covered, shall not exceed in elevation
"twenty-two (22) feet above Chicago city datum. Suitable
"and convenient entrances to the said station house and ex-
"its therefrom may be constructed within the space herein
"allowed to be occupied by it, and necessary provision may
"be made in the roof of the building to secure light and ven-
"tilation. Pipes connecting with the water main on Michi-
"gan Avenue may also be laid to furnish water for use in
"the station house, and also pipes connecting with the gas
"mains for heating and lighting the same. Proper connec-
"tions may also be made with the works or lines of any com-
"pany furnishing heat, light or power required for use in
"lighting, heating or ventilating the said building.

"Sec. 7. The said Railroad Company shall have the right
"to lay and maintain permanently necessary conduits and
"drainage pipes to secure proper and adequate drainage of
"its right of way between Randolph street and Lake Park
"Place, with the privilege of discharging into the lake or
"the most convenient city sewers.

3-49-45 "Sec. 8. The structures heretofore erected by the
"Illinois Central Railroad Company south of the
"north line of Lake Park place projected easterly and in

Certificate of evidence.

" front of its passenger station house, may be permanently
 " maintained by said company; and in case of the acceptance
 " of this ordinance, the said Railroad Company shall have the
 " right to use in perpetuity its grounds and right of way be-
 " tween the north line of Randolph street and the southern
 " boundary of the Lake Park, and the railroad tracks laid or
 " to be laid thereon, for all legitimate railroad purposes, free
 " from all restrictions, except that no building or other struc-
 " ture shall be erected upon that portion of its right of way
 " exceeding in height the top of the wall maintained along
 " the west side thereof, or, when erected at street crossings,
 " the floor of the viaduct or footway there constructed, ex-
 " cept by consent of the municipal authorities. But nothing
 " in this section contained shall be held to limit or impair
 " the lawful authority in the City Council to pass and enforce
 " all proper and reasonable police regulations.

" Sec. 9. That the performance of all and singular the
 " conditions and obligations imposed on the said Railroad
 " Company by the provisions of this ordinance, shall be con-
 " ditional and dependent upon its being permitted to have,
 " exercise and enjoy all the rights and privileges hereinbefore
 " conferred, and upon its acquiring possession and the unob-
 " structed right to occupy, reclaim and use the grounds here-
 " inbefore authorized to be occupied and used by it, in ac-
 " cordance with the terms and manifest intent of the pro-
 " visions of this ordinance.

" Sec. 10. The said Railroad Company shall relinquish and
 " surrender to the city any riparian or littoral rights it may
 " have incident or appurtenant to the land owned or occupied
 " by it on the shore of the lake between the north line of Lake
 " Park place projected and the north line of Twelfth
 " 3-49-46 " street projected, upon the condition, however, that
 " the area covered by water lying east or out-
 " side of the parcel of land which the said Railroad Com-
 " pany is authorized to fill in and reclaim for its own use by
 " the fourth section of this ordinance, and between the south
 " line of Lake Park place projected east, and the said Rail-
 " road Company's Thirteenth Street Pier, shall never be filled
 " in, or access thereto from the waters of the lake obstructed,
 " without the consent of said Railroad Company, excepting
 " only that the said Railroad Company shall, if the requisite
 " permission therefor shall be obtained from the Secretary of

"War, construct at its own expense a substantial bulkhead
"or breakwater about fifty feet wide, from the northeast an-
"gle of said Thirteenth Street Pier, in a northerly direction,
"on the same line as the eastern edge of that pier, for the
"distance of two hundred and fifty (250) feet, provided, how-
"ever, that nothing herein contained shall be held to affect
"the rights of the City of Chicago to exercise its rights of
"eminent domain—the pier so constructed to be maintained
"by the said Railroad Company and reserved for its own
"exclusive use; and also a like substantial bulkhead or break-
"water of the same width, from the southeast angle of the
"ground to be enclosed and filled, as provided in the first
"section of this ordinance, in a southerly direction, to a
"point one hundred (100) feet south of the south line of Lake
"Park place projected—the said last mentioned pier to be
"maintained by the City of Chicago and held for public use.

"Sec. 11. All public work herein required to be done by
"the said Railroad Company shall be done under the super-
"vision, and to the satisfaction of the Commissioner of Pub-
"lic Works of the City of Chicago.

"Sec. 12. Nothing herein contained shall be held
3-49-47 "to modify or in any way affect the final decree ren-
"dered in the suit between the People of the State of
"Illinois and the Illinois Central Railroad Company and the
"City of Chicago, hereinbefore referred to, except to the ex-
"tent and in respect of the particular matters and things
"hereinbefore provided for.

"Sec. 13. Upon the acceptance of this ordinance by the
"said Railroad Company (which shall be within thirty days
"after the passage thereof), a contract embodying the pro-
"visions herein contained, and binding the parties to the
"faithful observance and performance thereof, shall be exe-
"cuted, sealed and delivered by the proper officers of the city
"and the Railroad Company, which shall be of perpetual
"obligation.

"Sec. 14. This ordinance shall take effect and be in force
"from and after its passage.

certificate of evidence.

" State of Illinois, County of Cook, ss:

" I, Jas. R. B. Van Cleave, City Clerk of the City of Chicago, do hereby certify that the above and foregoing is a true and correct copy of an ordinance, concerning Lake Front question with the Illinois Central Railroad Company, passed by the City Council of the City of Chicago on the 21st day of October, A. D. 1895, and approved by his honor, the Mayor, on the 23rd day of October, A. D. 1895, original of which ordinance is on file in this office, and that

" I am the lawful custodian of the same.

3-49-48 " Witness my hand and the corporate seal of said City of Chicago, this 24th day of October, A. D. 1895."

(Signed) "JAS. R. B. VAN CLEAVE,"

" City Clerk."

[Corporate Seal of the City of Chicago.]

" Whereupon, the said ordinance having been read and considered, it was, on motion duly made and seconded,

" Resolved, That the Illinois Central Railroad Company do hereby accept the said ordinance; and that the President and Secretary of said Company be, and they are hereby, empowered and directed to execute in its behalf, under its corporate seal, a contract to be drawn in conformity to the requirements of the 13th section of the said ordinance, embodying the provisions contained in said ordinance, and binding the parties to the faithful observance and performance thereof, which shall be of perpetual obligation.

" On motion the Secretary was directed to transmit to the Mayor of the City of Chicago, a certified copy of the proceedings of the Board in relation to the acceptance of the foregoing ordinance, and to the City Clerk of said city a like certified copy of the said proceedings to be filed for record in his office."

And Whereas, a certified copy of the proceedings of the Board of Directors of the Illinois Central Railroad Company, above recited, duly attested by the Secretary of said Company under the corporate seal thereof was, on the fourth

day of November, A. D. 1895, filed for record in the office of the City Clerk of the said City of Chicago, and a like certified copy of the said proceedings was on the same day delivered to the Mayor of said city:

Certificate
dence.

3-49-49 Now, this agreement, made pursuant to the provisions of the thirteenth section of the said ordinance, Witnesseth.

That the said City of Chicago and the said Illinois Central Railroad Company do hereby mutually and severally covenant and agree that the provisions contained in said ordinance, as hereinbefore recited and set forth, shall be of binding and perpetual obligation between said connecting parties, each of them covenanting and agreeing with the other to stand to, abide by, make good, and faithfully observe and perform all and singular the concessions, grants, stipulations, conditions and undertakings therein contained, according to the true intent, meaning and interpretation thereof.

In witness whereof, the said City of Chicago has caused these presents to be subscribed by its Mayor, and its corporate seal, attested by its City Clerk, to be hereto affixed; and the said Illinois Central Railroad Company has caused these presents to be subscribed by its President and its corporate seal, attested by its Secretary, to be hereto affixed, the day and year first above written.

[Seal.]

CITY OF CHICAGO,
By GEO. B. SWIFT,
Mayor.

Attest:

JAS. R. B. VAN CLEAVE,
City Clerk.

ILLINOIS CENTRAL RAILROAD COMPANY,
[Seal.] By STUYVESANT FISH,
President.

Attest:

ALEXANDER G. HACKSTAFF,
Secretary.

Certificate of evidence. 3-49-50 State of Illinois, County of Cook, ss.

I, George A. Dupuy, a Notary Public in and for the said county of Cook, do hereby certify that George B. Swift, who is personally well known to me to be the Mayor of the City of Chicago and the identical person whose name is subscribed to the foregoing instrument as Mayor of said city, and James R. B. Van Cleave, who is personally well known to me to be the City Clerk of the said City of Chicago and the identical person whose name is subscribed to the foregoing instrument as City Clerk of said city, severally appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as the free and voluntary act of the said City of Chicago for the uses and purposes therein set forth, and that they severally executed the same freely and voluntarily as Mayor and City Clerk of said City.

Given under my hand and notarial seal this 30th day of November, A. D. 1895.

GEORGE A. DUPUY,
Notary Public.

[Seal.]

3-49-51 State of Illinois, County of Cook, ss.

I, John Dunn, a Notary Public in and for the said county of Cook, do hereby certify that Stuyvesant Fish, who is personally well known to me to be the President of the Illinois Central Railroad Company and the identical person whose name is subscribed to the foregoing instrument as President of the said Company, and Alexander G. Hackstaff, who is personally well known to me to be the Secretary of the said Illinois Central Railroad Company and the identical person whose name is subscribed to the foregoing instrument as Secretary of the said Company, severally appeared before me this day in person and acknowledged that they signed, sealed and delivered the said instrument as the free and voluntary act of the said Illinois Central Railroad Company for the uses and purposes therein set forth, and that they severally executed the same freely and voluntarily as President and Secretary of said Company.

Given under my hand and notarial seal this 25th day of November, A. D. 1895.

JOHN DUNN,
Notary Public.

[Seal.]

3-49-53 PERMIT FROM SECRETARY OF WAR.

Certification.

July 24, 1895.

Whereas, by Section 3 of an Act of Congress, approved July 13, 1892, entitled "An Act making Appropriations for the Construction, Repair and Preservation of Certain Public Works on Rivers and Harbors, and for other Purposes," it is provided that, without the permission of the Secretary of War, it shall not be lawful to build any wharf, pier, dolphin, boom, dam, river, breakwater, bulkhead, jetty, or structure of any kind outside established harbor lines, or where no harbor lines are or may be established, in any port, roadstead, haven, harbor, navigable river, or other waters of the United States, in such manner as shall obstruct or impair navigation, commerce or anchorage of said waters; or to excavate or fill, or in any manner to alter or modify the course, location, condition or capacity of any port, roadstead, haven, harbor, harbor of refuge or enclosure within the limits of any breakwater, or of the channel of any navigable water of the United States, unless approved and authorized by the Secretary of War.

And whereas, the City of Chicago, in the State of Illinois, by the Commissioner of Public Works, has applied for permission to fill in for the purpose of a public park, established by an ordinance of the City Council, passed June 27, 1895, a portion of the outer harbor at Chicago, Illinois, as far out as the harbor line established by the Secretary of War, September 22, 1890, the area to be filled in being shown on the attached blue print.

Now, therefore, this is to certify that the Secretary of War hereby gives permission to the said City of Chicago to fill in for the purpose of a public park, a portion of the outer harbor of Chicago, Illinois, as far out as said harbor line, as shown on said blue print, upon the following conditions:

1. That there shall be constructed along the dock line, and entirely enclosing the area to be filled, before any deposit whatever may be made, a substantial and tight bulkhead or retaining wall, extending not less than six (6) feet above ex-

the water intervening was just the same as the record shows was employed in this case at all points. The railroad claimed the right to do this (1) under its charter, and (2) as riparian owner. As to the first point, the Illinois court held that a proper construction of section 3 of its charter gave it no authority to enter upon and appropriate to its own use for railroad purposes lands covered by the waters of Lake Michigan outside of the 200-foot right of way. As to the second proposition the court said :

“We are aware of no well-considered case which “would sustain the proposed acts of appellant in filling in the lake and erecting upon the newly-made “land an engine house.” (*Ibid.*, p. 488.)

To reverse this decision a writ of error was taken by the railroad company from this court. This court handed down an opinion on March 12, 1900, affirming the decision of the lower court. In this court the railroad apparently abandoned its claim of riparian ownership.

Its remaining claim and this courts rejection thereof is stated by Mr. Justice Brown as follows: “The position “of the railroad company under these sections, presupposing as it does a vested, continuing and irrevocable right “for all time to use such of the shallow waters and submerged lands of Lake Michigan as it may now or hereafter find to be necessary to the proper and complete “operation of its road, and a surrender by the city of “all power of interference, is certainly a somewhat startling one. * * * But in examining section 3 of the “charter, the source of this almost unlimited power, we “find that so far from its being conferred in precise and “definite words, the implication is clearly against the “power claimed.” In affirming the decision of the

Illinois court this court took the same view of the railroad's charter it did in the case at bar. So that the railroad has no claim to this made land by virtue of its charter and ordinances.

The *first* point, we urge, is this: This court should determine the ownership which the state by its bill in 1883 asked to have adjudicated, in accordance with the law as established by this tribunal as well as by the highest tribunal in Illinois, and hold as a matter of law that the railroad company is no more entitled to fill up the bed of the lake north of 16th street than it has to fill it up at 27th street.

The *second* point is this: Assuming that this court prefers that part of Mr. Justice Field's opinion that the railroad as riparian owner has the right to build or wharf from its lot to navigable water, and repudiates that portion of the opinion which says the state owns the submerged lands over which the pier or wharf must be built, and no person can be permitted to possess them, save upon license by the state, still the land in question was not filled in for dock or wharf purposes, but merely for the purpose of adding to defendant's railway yards. (See pp. 149-153 of Argument; also answer, Trans., p. 39.) No theory of riparian rights permits this to be done.

The *third* point is this: The lower court erred as a matter of law in holding that the railroad had a right to penetrate into instead of docking out to "that point of navigability where the necessity for such erections *ordinarily* ceased." It also erred on the question of fact, in holding that the filled in land did not extend beyond the point of practical navigability, having reference to the manner in which commerce is carried on on the lakes.

Fortunately the facts are not much in dispute.

The additions south of 12th street, other than the 13th street addition, were built in water from thirteen to fifteen feet deep, while the 13th street addition was built in water over sixteen feet deep at its shore end. (See pp. 109 to 138 of argument. Plats, p. 11.) In 1894, when this evidence was taken, the channel of the "Sioux" canal, connecting Lake Superior with the lower lakes, was limited to fourteen and one-half feet. (Rec., 797.) The artificial channel at the St. Clair flats which connected the lower and upper lakes was prior to 1894 less than sixteen feet in depth. (Rec., 557.) The commerce of the Chicago river then and now is limited by the "crown" of the La Salle street tunnel, which for the forty feet in the center of the stream forbids vessels loaded to seventeen feet passing up the Chicago river, while at the banks of the river a vessel drawing twelve feet of water cannot navigate. (Rec., 578.) These depths limit the largest commerce of the lakes. The average tonnage of the fleet of the Great Lakes is 369 tons, requiring for navigation not to exceed ten feet of water. (Rec., 815-6.)

The additions made by the defendant railroad north of Randolph street were constructed in water from ten to twelve feet deep—a depth as great as the draft required by the largest lake vessel at the time the additions were built, and in excess of the average of the present lake fleet. (See pp. 72 to 100 of argument.)

Under this question the point for discussion is "do these structures extend into the lake *beyond the point* of practical navigability having reference to the manner in which commerce in vessels is conducted on the lakes?" We say the lower court erred in holding that they did not. The question of law is as to how the

mandate should be construed. The contention of the appellant as well as that of the majority of the lower court being that the defendant railroad may penetrate with docks beyond the point of practical navigability and into its navigable waters so that vessels may lie at the sides as well as the ends, so long as such docks do not obstruct navigation. (Transcript 1077-1085.)

The contention of Judge Woods is expressed in his dissenting opinion which is as follows:

Woods, Circuit Judge, dissenting:

“I agree that our duty is simply to determine whether
 “the decree below is in accord with the mandate of the
 “Supreme Court, and that mandate, speaking as it does
 “in the present tense, I also agree, must be deemed to
 “refer to the date of the opinion (December 5, 1892),
 “in pursuance of which it was issued; but it does not
 “seem to me to follow that no consideration may be given
 “to the later cases of *Shively v. Bowlby* and *Recell v.*
 “*The People*, to which reference has been made. These
 “cases, I think, put it beyond doubt, that if the question
 “were yet open the Supreme Court would not hold as it
 “did that the Illinois Central Railroad Company had
 “any right, by virtue of its ownership of riparian lands,
 “to build piers into the lake to the point of navigability,
 “and we are therefore dealing with a nakedly technical
 “right, which exists only because it has been adjudged
 “to exist. But for the judgment on which it rests it
 “has not even the merit of the celebrated stipulation for
 “a pound of flesh. The mandate for its allowance hav-
 “ing passed, and not having been recalled or modi-
 “fied, must be enforced to the full extent of its nec-
 “essary scope, but its scope should be determined by a

"strict construction rather than by the liberal rule, en-
 "larged upon in the opinion of the majority. It may be
 "that the riparian right ordinarily is not concluded or ex-
 "hausted by a single exercise of it, and that 'the owner
 "has the right at all times to reach the point of practical
 "navigability, as it may exist from time to time,' but the
 "Supreme Court has not said that of this case, and we
 "need not, and, as I think, should not, say it. On the
 "contrary, the opinion of the Supreme Court and its
 "mandate are too specific in one respect to admit of the
 "liberal construction which the court favors. 'To the
 "point' of practical navigability is the specific limita-
 "tion, and 'the excess beyond such point' is to be re-
 "moved or abated. These are expressions which make
 "irrelevant any argument or citation of authority to
 "show that 'to reach sometimes means to penetrate,' or
 "that to reach navigable water reasonably implies some
 "'intrusion into it.' Equally irrelevant seems to me the
 "suggestion that a pier would be of no use without
 "navigable water alongside of it. If not outside of the
 "inquiry commanded, the proposition would be unavail-
 "ing for the purpose of the argument, because the neces-
 "sary depth at the sides of a pier extending 'to the
 "point' of navigability is only a matter of dredging,
 "from the cost of which the railroad company should
 "not be relieved at the expense of the State. The man-
 "date seems to me to leave room for differences of opin-
 "ion only in respect to the meaning of the expression
 "'practical navigability, having reference to the manner
 "in which commerce in vessels is (was then) conducted
 "on the lake.' The question, I agree, is one of
 "fact, but it is to be determined according to

“the meaning of that expression. The court
 “below was not only at liberty, it could not escape the
 “duty, to determine the meaning of the words, and if
 “there was doubt, it had the right, and this court now
 “has the right, to favor, and, as it seems to me, in view
 “of the later opinion of the Supreme Court and the rul-
 “ing of the highest court of the state, ought to favor the
 “public title, which is just and clear, rather than the
 “private claim which is technical and should not be en-
 “larged by implication, either of law or fact. The evi-
 “dence, as I recall it, shows that the piers for the greater
 “part, if not for their entire length, were erected in water
 “varying in depth from eight to fourteen feet, and for many
 “boats on the lake that is and always has been navigable
 “water. The very interesting facts and figures in rela-
 “tion to the growth of commerce, and the increased size
 “and draft of boats brought into use is of little signifi-
 “cance, unless the mandate is to be interpreted as mean-
 “ing that the question of navigability is to be deter-
 “mined with reference solely to boats of the greatest, or at
 “least those of more than the average draft. It is undeni-
 “able that there is now, and since Chicago was founded
 “there has been, in actual use upon the lake a large,
 “though in recent years diminishing number of vessels
 “drawing nine feet or less, and I should be unable to
 “agree that these piers do not extend beyond the point of
 “navigability within the meaning of the mandate, even
 “if the riparian right involved was one of the highest
 “equity. The title to the land under the piers certainly
 “was once in the state, and never by accretion of soil or
 “recession of the waters has there been an appreciable
 “shifting of the boundary line between the land and the

“ water. Neither had there been before the building of
 “ the piers any change in the depth of water of a char-
 “ acter to affect the question of navigability where the
 “ piers stand or in the neighborhood, and it would be
 “ difficult, I think, by the evidence, or on general infor-
 “ mation, to specify the time, either by year or by
 “ decade, when by change in commerce as conducted in
 “ vessels on the lake the title of the state was divested,
 “ or became subject to occupation by a riparian owner
 “ for the construction of piers, conceding such a right to
 “ exist in non-navigable water. It was certainly not
 “ within the power of the Illinois Central, by putting
 “ larger boats on the lake than had been in use before,
 “ to take from the state what by the decision of the Su-
 “ preme Court in this case the state had not power, even
 “ by an act of its legislature, to grant to that company;
 “ and if the larger boats were brought into use by
 “ others for whose action the railroad company was in
 “ no sense responsible, the conclusion is not affected.
 “ The essential fact is that water from six to thirteen
 “ feet deep is navigable to vessels yet engaged in com-
 “ merce on the lake, and these piers extend far beyond
 “ the point where, but for their presence there would be
 “ a depth of ten feet or more. There has been and
 “ doubtless will be demands for channels and harbors of
 “ increased depth, but that does not mean, theoretically
 “ or practically, that waters once sufficient for the largest
 “ boats in use have ceased to be navigable, though there
 “ are now boats for which they are inadequate.

“ The establishment by the government of a harbor
 “ line and the ordinances and contracts for the construc-
 “ tion of Lake Park have in respect to this case just this

“significance and no more: that, instead of ordering that
 “the piers in question be abated or removed, we should
 “direct, as the mandate permits, that ‘other proceed-
 “ings relating thereto be taken on application of the
 “State as may be authorized by law.’ The land under
 “the piers—a considerable part of it upon any reasonable
 “view of the case, as I see it—belongs to the State. It
 “should be surrendered or paid for. It is not, as the
 “opinion of the Supreme Court in this case demon-
 “strates, ‘a mere naked legal title’ which the State has;
 “nor is it held only ‘for the very purpose to which these
 “structures are devoted, namely, commerce on the lake.’
 “This company holds possession for its own private
 “purposes, and to that extent we have an example
 “to the contrary of the belief declared in the opinion
 “of the Supreme Court ‘that no instance exists
 “where the harbor of a great city and its commerce
 “have been allowed to pass into the control of any private
 “corporation.’ The state, if restored to its rights, would
 “hold for the benefit of the public, and could alienate
 “only ‘in those instances mentioned of parcels used in
 “the improvement of the interest thus held, or when
 “parcels can be disposed of without detriment to the
 “public interest in the lands and waters remaining.’ So
 “said the Supreme Court in this case. We should not
 “say otherwise.” (Transcript, 1085-1088.)

The contention of the appellant and of Judge Woods is
 that when the mandate said “but if it be ascertained and
 “determined that such piers or any of them do extend
 “*beyond such navigable point* then the said court shall
 “direct the said pier or piers *to the excess ascertained* to
 “be abated or removed, or that other proceedings relat-

“ing thereto be taken on the application of the state as “may be authorized by law,” the lower court was directed to find the line of practical navigability, and had no authority to vest the title to any encroachments upon the state’s land beyond that line in the railroad.

These points arise in considering the following:

SPECIFICATION OF ERRORS.

1st. The United States Circuit Court of Appeals for the Seventh Circuit erred in affirming the judgment of the United States Circuit Court for the Northern District of Illinois, in the above entitled cause, and in holding that the piers and docks referred to in the judgment and mandate of the Supreme Court in the above entitled suit, and in its decree mentioned and there described as piers marked 1, 2 and 3, near Chicago river, and the piers and docks constructed by said railroad company in front of the shore between Twelfth and Sixteenth streets, all in the City of Chicago, in the State of Illinois, do not extend, nor does either of them extend into the lake beyond the point of practicable navigability, having reference to the manner in which commerce in vessels is conducted on the lake.

2nd. The said United States Circuit Court of Appeals for the Seventh Circuit erred in awarding any lands to the Illinois Central Railroad Company and rendering any decree in favor of the appellee, the Illinois Central Railroad Company.

3rd. The United States Circuit Court of Appeals for the Seventh Circuit erred in refusing to direct a decree

awarding all the land in controversy to the State of Illinois and rendering any decree against the appellant.

4th. The United States Circuit Court of Appeals for the Seventh Circuit erred in affirming the decree of the United States Circuit Court for the Northern District of Illinois, and ordering, adjudging and decreeing that the title and possession of the Illinois Central Railroad Company to said piers and docks, and each of them and every part thereof, be affirmed.

BRIEF.

The State asks for a decree awarding it the possession of its own land unlawfully appropriated by the defendant railroad company. If the land belongs to the state this court will award it the possession thereof notwithstanding defendant's structures.

Attorney General v. Philpott, Exch., D. & O., Series 3, Vol. xii. 66b.

Appendix 1, Moore on Foreshore, p. 903.

Shively v. Bowlby, 152 U. S., 13.

I.

EVERY FOOT OF THE LAND IN QUESTION BELONGS TO THE STATE UNDER THE LAW AS ESTABLISHED IN THE SUPREME COURT OF THE STATE OF ILLINOIS AS WELL AS IN THIS COURT.

A.

THE LAW AS IT IS SETTLED IN ILLINOIS.

a. *The local law of Illinois is always enforced by this court in determining the rights of riparian owners in Illinois.*

Shively v. Bowlby, 152 U. S., 1.

St. Louis v. Rutz, 138 U. S., 226-242.

Barney v. Keokuk, 94 U. S., 324-338.

St. Louis v. Myers, 113 U. S., 566.

Packer v. Bird, 137 U. S., 161.

Hardin v. Jordan, 140 U. S., 385-402.

Transportation Co. v. Parkersburg, 107 U. S., 750.

b. *Under the common law of England, which is the rule for decision of riparian rights in Illinois, the riparian owner has no right to fill in or wharf out upon or build docks over the lands lying under the waters of Lake Michigan without the consent of the state, the owner of such lands.*

Revell v. People, 177 Ill., 468.

(1) *The common law of England, as it was prior to 4 James I, is the rule for decision in Illinois and has always prevailed in this territory.*

Hardin v. Jordan, 140 U. S., 385.

The common law of England prior to 4 James I is by statute the common law of Illinois.

Sec. 1, Ch. 281, Starr and Curtis Stats. (Ill.), p. 563.

Sec. 1, Ch. 62, R. S., Ill. (1845), p. 337.

R. S. Ill. (1833), p. 425.

R. S. Ill. (1829), p. 102.

R. S. Ill. (1819), p. 1.

1 Pope's Ter. Laws, Ill., p. 34.

Ch. 24 Johnson & Jones Ed. Laws Ind., p. 539.

Sec. 6, Ch. 59, Henning's Stats. at Large, p. 127.

Acts Genl. Ass., Sec. 3, p. 302 (1794).

Johnson & Jones Ed. Laws, Ind., 539.

(2) *At common law and in Illinois the abutting owner's lot, when bounded on a stream non-navigable at common law—that is, a stream where the tide does not ebb and flow—is presumed to extend to the thread of the stream. And it is for that reason alone—the ownership of the submerged land to the middle of the stream—that he is entitled to dock out and fill in on his own submerged lands so long as he does not interfere with navigation.*

Middleton v. Pritchard, 3 Scam., 509.

Canal Trustees v. Haven, 5 Gil., 558.

Ensminger v. People ex rel., 47 Ill., 384.

Chicago v. Laflin et al., 49 Ill., 176.

Chicago v. McGinn, 51 Ill., 266.

Rockwell v. Baldwin et al., 53 Ill., 22.

Braxton v. Bressler, 64 Ill., 488.

People ex rel. v. Board of Supervisors, 125 Ill., 23.

Houck v. Yates, 82 Ill., 179.

Fuller v. Dauphin, 124 Ill., 546.

Washington Ice Co. v. Shortall, 101 Ill., 52.

Village of Brooklyn v. Smith, 104 Ill., 429.

McCartney et al. v. C. & E. R. R. Co., 112 Ill., 634.

- (3) *The owner of a lot bounded by a body of water like Lake Michigan acquires no right at common law or in Illinois to occupy or seize the land underlying the water without the consent of the owner. The reason is that his title extends only to the water's edge. The state owns all beyond.*

Revell v. People, 177 Ill., 468.

Such has always been the law in Illinois.

2 Blackstone's Comm. (Sharswood's Ed.), p. 15.

Seaman et al. v. Smith, 24 Ill., 534.

Trustees of Schools v. Schroll, et al., 120 Ill., 518.

People v. Kirk, 162 Ill., 138.

B.

THE SAME RULE IS APPLIED BY THE SUPREME COURT OF THE UNITED STATES WHEN ADJUDICATING ON RIPARIAN RIGHTS OF PROPERTY LOCATED IN STATES WHERE THE COMMON LAW PREVAILS AND BOUNDING ON A BODY OF WATER LIKE LAKE MICHIGAN.

Shively v. Bowlby, 152 U. S., 14.

Hardin v. Jordan, 140 U. S., 383.

Webber v. Harbor Commissioners, 18 Wall., 57.

Barney v. Keokuk, 94 U. S., 324.

THE DOCTRINE THAT THE RIPARIAN OWNER COULD DOCK OUT TO NAVIGABLE WATER IN THE OCEAN, THE GREAT LAKES OR OTHER WATERS, NAVIGABLE AT COMMON LAW AROSE AND WAS ORIGINALLY APPLIED IN PASSING UPON RIPARIAN RIGHTS IN STATES WHERE BY STATUTE THE STATE HAD TRANSFERRED ITS SUBMERGED LANDS OR THE USE THEREOF TO THE OWNER OF THE UPLAND.

Shirly v. Bowlby, 152 U. S.

Commonwealth v. Alger, 7 Cush., 53.

The application of the general proposition was proper in *Yates v. Milwaukee*, 10 Wall., 497, as under the laws and decisions of Wisconsin the abutting owner on the Milwaukee river owned to the middle of the stream.

The language employed in *Atlee v. Packet Co.*, 21 Wall., 389, were used in illustration, and was *dicta*.

So in *Railroad Co. v. Schurmeier*, 7 Wall, 272, this court followed the decision of the Minnesota court. The sweeping propositions in *Dutton v. Strong*, 1 Black 33, was *dicta*.

Vide

Shively v. Bowlby, 152 U. S., 37.

The opinion of the Circuit Court of Appeals in this case was written by a Wisconsin lawyer, was based upon a Wisconsin decision, which in turn was based upon *Dutton v. Strong*, *supra*, *Atlee v. Packet Co.*, *supra*, and *Diedrich v. Railroad Co.*, 42 Wis., 248. His view, however appropriate in passing on riparian rights in property situated in Wisconsin, is an erroneous one to apply to property situated in Illinois.

No question of accretions is involved in this case, such as was considered in *Livingston et al. v. St. Clair Co.*, 64 Ill.; *Ibid.*, 23 Wall., 46; *Banks v. Ogden*, 2 Wall., 57.

C.

COMPLAINANT'S SUIT HAS BEEN PENDING IN COURT EVERY MINUTE OF THE TIME SINCE 1883, AND THIS COURT HAS NEVER DECIDED THE TITLE TO THE PROPERTY HERE IN CONTROVERSY. THE DOCTRINE OF "RES ADJUDICATA" HAS NO BEARING. THE DOCTRINE OF "STARE DECISIS" CANNOT BE INVOKED. THE PRINCIPLE, THE "LAW OF THE CASE," DOES NOT APPLY. ESPECIALLY WHEN ONE PART OF THE OPINION UNDER WHICH THE MANDATE WAS ISSUED CONTROVERTS ANOTHER PART.

The opinion forms a part of the mandate and this court may construe its own mandate.

In re Sandford Fork & Tool Co., 160 U. S.,
256.

I I .

ALL FILLING MADE AND ALLEGED DOCKS CONSTRUCTED WERE PLACED IN WATER PRACTICALLY NAVIGABLE, HAVING REFERENCE TO THE MANNER IN WHICH COMMERCE IN VESSELS IS CONDUCTED ON THE LAKE.

A.

THE LOWER COURT ERRED IN CONSTRUING THE
MANDATE.

- (1) It should have looked into the opinion.

In re Sandford Fork & Tool Co., 160 U. S.,
256.

Having the Revell case and Shively case presented to it, it should have construed the mandate strictly and with reference to the law in Illinois and in this forum.

Instead it construed the mandate liberally and in accordance with the law of Wisconsin, where the writer of the opinion passed his professional career.

The Court of Appeals predicated its opinion on the right of the railroad to "penetrate into" practically navigable waters. The opinion and mandate each forbid its going beyond the "point" of such navigability and awards any "extension beyond such "point" to the state.

- (2) It erred in construing the inquiry to relate to the date of the final decree rather than to the time the bill was filed or the structures built.

Docks built *pendente lite* are at builders' risk.

Miller v. Mayor, etc., 109 U. S., 392.

B.

THE DEPTH OF THE WATER AT THE POINT FILLED IN
AT THE TIME THE SUIT WAS BROUGHT WHEN SAID
STRUCTURES WERE BUILT AND WHEN THE EVIDENCE WAS TAKEN.

IT WAS ALL PRACTICALLY NAVIGABLE, HAVING REFERENCE TO THE MANNER IN WHICH COMMERCE IS CARRIED ON IN THE LAKE.

- (1) *All the filling in and so-called docks north of Randolph street were made in water varying from ten to thirteen feet deep, and deeper water was not gained by their construction.*

- (2) *This depth of water was then and is now practically navigable, having reference to the manner in which commerce in vessels is conducted on the lake.*
- (3) *The structures south of Park Row were built in water from thirteen to fifteen feet deep, while the 13th street dock started in water at its shore end over sixteen feet deep. At the date of the hearing the limit of navigation between Lakes Erie and Huron was at St. Clair flats. The deepest water in the channel was sixteen feet. Between Lakes Superior and Huron the limit was at the "Soo," with a depth of fourteen and a half feet. The limit of navigation in the Chicago River is the crown of the La Salle street tunnel. At that point the water is not deep enough in the middle of the channel to allow a boat drawing more than sixteen feet to pass up the river, to where seven-eighths of the commerce is shipped. At the sides of the river it is only eleven feet deep.*

Twenty feet was declared to be beyond the line of practical navigability at Detroit, though the Michigan courts recognize the right of riparian owner to dock out in Detroit River.

Jackson, J., in Grand Trunk Ry. Co. v. A. Backus, Jr., 46 Fed. R., 215.

- (4) *The structures were not intended for docks and save those north of Randolph street have never been used as docks. The latter have never been used as docks by the railroad company but only by lessees thereof, such as coal and lumber dealers.*

ARGUMENT.

The land claimed by the State of Illinois is everything which has been filled in or constructed east or lakeward of the red line on the frontispiece marked "breakwater" as it was in 1869.

Everything east of that line which appears above the surface of the water has been made by the defendant since April 17, 1869, the date of the passage of the lake front act, by filling in the waters of Lake Michigan. This made land north of Randolph street, as it existed at the time of the trial in 1887 and at present, is approximately shown on the Morehouse map. (Rec., 328.) During the eight years which have elapsed since said trial the defendant has added considerably to the territory south of Park Row. As it now exists, compared with its dimensions in 1869, is shown on Greeley's maps, Exhibits N and O. (Rec., 658.) On these maps Mr. Greeley has placed the red line of Morehouse, showing the breakwater as it existed in 1869 with relation to the shore line of to-day; also with reference to the west line of the railroad right of way and to Indiana and Michigan avenues west thereof. He has also placed thereon, with reference to said red line, measurements by means of which a decree might be framed which might accurately describe the property to be awarded to the State of Illinois. The court will not be misled by the inside line on Exhibit O and which is crossed out thereon. This was placed on the map as a copy of the red line appearing in the reduced lithograph of the Morehouse map, which was printed in the opinion of the Supreme Court, but it was learned that the litho-

graph was not reduced to scale and the original Morehouse map was then compared, and the red line as shown thereon was transferred to Exhibits N and O. An abstract of these maps, with reference to the lands in controversy, with the innumerable soundings omitted therefrom, we have inserted for the convenience of the court as a frontispiece to this brief. The dimensions are in feet. The State of Illinois asks that this court may decree that the filling in is all a purpresture; that the respondent has no title to any of it, and in conformity with the precedents that the title and possession thereof be vested in the State of Illinois, to be by it rented out or used for such other purposes as its legislature may from time to time designate. This is in accordance with approved precedents.

See

Attorney General v. Philpott, Exch., D.
& O. Series, 3 Vol. xii. 66b.

Appendix 1, Moore on Foreshore, p. 903.

Shively v. Bowlby, 152 U. S., 13.

The Illinois Central Railroad Company's sole claim to any of this land is that by reason of being a riparian owner bordering on the waters of Lake Michigan it has a right to appropriate and occupy the land of the state submerged there under.

I.

EVERY FOOT OF THE LAND IN QUESTION BELONGS TO THE STATE AS THE LAW IS LAID DOWN IN THIS COURT AS WELL AS BY THE SUPREME COURT OF ILLINOIS.

A.

THE LAW AS IT IS SETTLED IN ILLINOIS.

(a) *The local law is always enforced by this court in determining the rights of riparian owners.*

The land in question being within the limits of the State of Illinois, the question of what right the riparian owner has to enjoy or occupy the submerged land owned by the state is governed by the local law of Illinois.

Shively v. Bowlby, 152 U. S., 1.

St. Louis v. Rutz, 138 U. S., 226-242.

Barney v. Keokuk, 94 U. S., 324-338.

St. Louis v. Myers, 113 U. S., 566.

Pucker v. Bird, 137 U. S., 161.

Hardin v. Jordan, 140 U. S., 385-402.

Transportation Co. v. Parkersburg, 107 U. S., 750.

(b) *Under the common law of England, which is the rule for decision of riparian rights in Illinois, a riparian owner has no right to fill in or wharf out upon or build docks over the lands lying under the waters of Lake Michigan without the consent of the state, the owner of such lands.*

Reed v. People, 177 Ill., 468.

The common law of England is the rule of decision in Illinois, especially with reference to boundaries of ripar-

ian proprietors, and it will be followed by this court in the absence of a declaration of the Supreme Court of the state to the contrary.

(1) *The common law of England has always governed the question of riparian rights in Illinois.*

Hardin v. Jordan, 140 U. S., 385.

The statutes to-day in force in the State of Illinois provide "that the Common Law of England, so far as the same is applicable and of a general nature, and all statutes or acts of the British Parliament made in aid of, and to supply the defects of the common law, prior to the fourth year of James the First* (March 24, 1606), excepting the second section of the 6th chapter of 43d Elizabeth (frivolous suits), the 8th chapter of 13th Elizabeth (against usury), 9th chapter of 37th Henry the Eighth* (against usury), and which are of a general nature and not local to that kingdom, shall be the rule of decision and shall be considered as of full force until repealed by legislative authority."

Sec. 1, Chap. 28, 1 Starr & Curtis Stat. (Illinois), page 563.

The statute making this declaration is found in the Revised Statutes of Illinois of 1845 (Sec. 1, Chap. 62, R. S. Ill. 1845, page 337), and prior to that time the same statute is found enacted in the revision of 1833 (page 425), in the revision of 1829 (page 102) and in the laws of 1819 (page 1).

December 13, 1812, the Illinois Territory adopted the laws of Indiana Territory which were in force in that territory March 1, 1809—the date of the division of Illinois Territory from that of Indiana (Pope's Ter. Laws, Vol. 1, p. 34).

Among the laws of that territory was a statute similar to the present Illinois statute, with the addition after the word "kingdom" of "and also the several laws in force in this territory."

Chap. 24, Johnson & Jones' Ed., Laws of Ind., page 539.

A similar statute was in force in Virginia May 6, 1876, with the words between the asterisks omitted. (Sec. 6, Chap. 59, Henning's Statutes at Large, p. 127.) But this statute was repealed about 1791 so far as it related to the English statutes. It was, however, adopted by the governors and judges of the Northwestern Territory some three years after. (Acts Gen. Ass., Sec. 3, p. 302, 1794.) But at the first session of the Second General Assembly of Indiana Territory a statute was adopted providing that all laws existing in that territory prior to that session of the legislature, with the exception of such as were contained in the revision of Johnson & Jones (ante), were repealed, and these latter, with the addition of such as were passed at that session, should be the only statute laws in force.

(Johnson & Jones Ed., Laws of Indiana, 539.)

The enactment by the first legislature of the State of Illinois, "that all laws or parts of laws, passed by or under the authority of any territorial government heretofore existing, be and the same are duly repealed" (Laws 1819, p. 35, R. S. 1833, p. 435), eliminates from our consideration laws and practices of the Indiana Territory injected, as we have shown, into the system of the laws of the Illinois Territory by the above statute of December 13, 1812.

The ordinance of 1787, guaranteeing to the inhabitants of the Northwest Territory the benefit of judicial proceeding according to the course of the common law, was repealed by the adoption of the United States constitution. (*Strabor v. Armstrong*, 10 How., U. S., 81.)

The charter of the London Company, which settled Virginia, out of which the Northwest Territory was carved, and out of which in turn the Indiana Territory, and thereafter the Illinois Territory was carved, was granted in the year 1606.

We, at the threshold of this case, call the attention of the court to the care with which the legislature of Illinois, and its predecessors in control of the soil now found within the limits of the State of Illinois, have ever recognized the common law of England as it existed at the date of the grant of the charter of the London Company, to be the rule of decision in Illinois.

(2) *At common law and in Illinois the abutting owner's lot, when bounded on a stream non navigable at common law—that is where the tide does not ebb and flow—is presumed to extend to the thread of the stream. And it is for that reason alone—the ownership of the submerged lands to the middle of the stream—that he is entitled to dock out and fill in so long as he does not interfere with navigation.*

The Supreme Court of the State of Illinois, when it was called upon for the first time to construe a deed conveying real estate in Illinois and bounding the property conveyed by the Mississippi river, held that it looked solely to the common law of England as it existed prior to the fourth year of James I. as the authority which it was obliged to

follow. It found that at common law what would pass by a grant bounded by a stream of water depended upon the character of the stream. "If it were a navigable stream of water, the riparian proprietor extended only to high water mark. If it were a stream not navigable the rights of the riparian owner extended to the center thread of the current. * * * At common law only arms of the sea and streams where the tide ebbs and flows are deemed navigable. Streams above tide water, although navigable in fact at all times, or in freshets, were not deemed navigable in law. To these, riparian proprietors, bounded on or by the river, could acquire exclusive ownership in the soil, water and fishery to the middle thread of the current; subject, however, to the public easment of navigation. And this latter Chancellor Kent says bears a perfect resemblance to public highways." The court held that such being the rule at common law, the grant of land bounding it on a river, where the tide did not ebb or flow, however navigable in fact, passed title to the grantee to the middle of the thread of the same, because it was not navigable by common law.

Middleton v. Pritchard, 3 Scam., 509.

This case was decided in 1842. In 1849 the same principle was laid down by said court in *Canal Trustees v. Haven*, 5 Gil., 558, the court saying, however, that the vendor, the owner, may restrict his grant either to the edge of the water or to high or low water mark, so long as such intention is clear and manifest. This decision, that the common law governs the riparian ownership, has invariably been the rule since.

In *Ensminger v. The People ex rel.*, 47 Ill., 384, the

court held that the riparian owner on the Ohio river in Illinois owned *at least as far as the low water mark* and had the right to the exclusive use of the land between high and low water mark, and therefore possessed the right to establish a private wharf thereon and make reasonable charges for its use by those navigating the river. The court declared that the public had no right to use the bank of the river without the consent of the owner.

In *The City of Chicago v. Laflin et al.*, 49 Ill., 176, the Supreme Court of Illinois reaffirmed the doctrine that the title of a riparian owner extended to the middle of the stream, which is called for as a boundary, and that the riparian owner might use and enjoy the submerged land as his own in any lawful manner, provided he did not obstruct or impair the enjoyment of the easement by the public to navigate said stream. On this ground the court held that the riparian owner had a right to build a dock in the Chicago river so long as said dock did not interfere with the navigable waters thereof, and that the city could not make changes in that stream so as to render the building of wharfs an obstruction and then require their removal without compensation. This case is similar to *Yates v. Milwaukee* (10 Wall., 497), decided by this court.

In *The City of Chicago v. McGinn*, 51 Ill., 266, the same view was adhered to by the Illinois Supreme Court. It said:

“ Neither the Illinois, the Mississippi, nor the Chicago
 “ river is a navigable stream in the sense of the common
 “ law, which obtains in full force in this state by legisla-
 “ tive enactments. No rivers by the common law are
 “ deemed navigable above the ebb and flow of the tide.
 “ The stream above belongs to the riparian proprietors
 “ on each side of it *ad filum aquæ*.”

The court in that case held that the City of Chicago owned to the center of the Chicago river by virtue of owning the land on either side, and that the city had the right to use the river, the soil under it and the banks, for any use which it deemed most promotive of the public interests, subject only to the easement by the public for navigation. The right of the city to build a swing bridge in the middle of said river and regulate the time and manner of vessels passing through it was for this reason sustained.

In *Rockwell v. Baldrin et al.*, 53 Ill., 22, it was pointed out that this ownership of the bed resulted solely from a presumption, and if the deed limited the lot to the bank of the stream the presumption would fail and the party be bound by the deed

In *Braxton v. Bressler*, 64 Ill., 488, it was admitted that Rock river was navigable in fact but was above tide water. The court held that it was non-navigable at common law and that plaintiff, whose land bounded thereon, was by virtue thereof the owner to the center of the stream and entitled to maintain replevin for rock quarried in the river three hundred to five hundred feet distant from plaintiff's bank. Says the court: "The
 " common law is in force in this state, and its principles
 " must control in the elucidation of the question.
 " Though a river may be navigable in fact it is not so in
 " a common law sense, where it is above the point where
 " the tide ebbs and flows: above this point the
 " bed of the stream belongs to the riparian owners.
 " * * * No individual can appropriate to his own use
 " the bed of the stream without the consent of the ad-
 " joining proprietor. The principles of the English law
 " which must govern this court have been so fully and

“clearly settled that any elaboration of them is unnecessary.” The court in this case refused to follow the decision of the United States Supreme Court in *Railroad Company v. Schurmeier*, 7 Wallace, 272, the effect of which was to place the fee under the Mississippi river opposite St. Paul in the United States.

This court will note in passing that the Illinois court held that it was because the land was bounded on a stream where the tide did not ebb and flow, and hence was unnavigable at common law, that the legal presumption followed that the title of the owner went to the middle of the stream. It was because of his ownership of the bed of the stream *ad filum aquæ* resulting from this presumption that the owner could erect docks on such bed and maintain replevin for rock taken therefrom, and not because of any riparian rights attaching to the ownership of the bank. It was said in this case that if the deed had used language which would have excluded the intermediate space between the edge of the bank and the middle of the stream, the plaintiff, although owning to the edge of the water, would have had no right to the soil beyond the water's edge, and could not have brought replevin for rock taken therefrom. In a later case the Illinois court said: “It was
 “competent for the riparian owner to sell his upland to
 “the top or edge of the bank of a river, and to reserve
 “the stream or flats below high water mark if he does it
 “by clear and specific boundaries. And so we said in
 “*Rockwell v. Baldwin et al.*, 53 Ill., 22. It is, how-
 “ever, but a presumption, for one man may own the
 “bed of such stream and another man may own the
 “banks. And where, in a deed conveying land, the bound-
 “ary is limited to the bank of the stream instead of

“ bounding it on or along the stream, the presumption
 “ must fail. The party must be controlled by the terms
 “ of his deed.”

The People ex rel. v. Board of Supervisors,
 125 Ill., 23.

In *Houck v. Yates*, 82 Ill., 179, the same principle was applied, and for the same reason. The court there say: “ If, then, the river forms a boundary of the land
 “ owned by appellee, acquired from the government, it
 “ necessarily follows that the grant extended to the cen-
 “ ter of the thread of the current of the river (Missis-
 “ sippi).”

To the same effect see

Fuller v. Dalphin, 124 Ill., 546.

In *Washington Ice Co. v. Shortall*, 101 Ill., 52, by the application of the same principle, the holder of property bounding on the Calumet river, a stream navigable in fact, but not at common law, was held to be entitled to maintain trespass for ice cut from such a stream, both banks of which were owned by him, the court declaring that the ice “ was connected with and in the nature of an ac-
 “ cession to the land, being an increment arising from
 “ formation over it, and belonging to the land properly
 “ as being included in its indefinite extent upwards.”

This court will observe the rigid adherence to the principle that it is only by reason of the ownership of the underlying soil as far as the middle of the stream presumed to follow the bounding of the property on a stream non-navigable at common law, that the owner possesses the right to construct docks or wharves upon its bed, to enjoy the water which flows above it, has the exclusive right to catch the fish which swim within its waters,

and to cut and appropriate ice which congeals upon its surface. The mere ownership of the bank separately and distinct from the ownership of the submerged soil confers none of these rights.

On similar grounds, an intruder upon the Mississippi river, next to a public highway, bounding thereon, was denied an injunction against the authorities of the Village of Brooklyn, whereby he sought to prevent interference with his operations in cutting and removing ice from the river.

Village of Brooklyn v. Smith, 104 Ill., 429.

See, also, *McCartney et al. v. C. & E. R. R. Co.*, 112 Ill., 634, where a railroad, by reason of owning property forming both sides of the Chicago river, was held to be entitled to build a bridge pier in the middle of the river. For like reasons the state was determined to have no interest in the bed of the river.

The right to fill in submerged lands and to build docks thereon in the case of rivers non-navigable at common law, being based solely on the presumption of ownership of such submerged lands, which presumption follows the bounding the lot by the river, let us inquire whether by Illinois law the riparian owner on Lake Michigan is presumed to have any title to the submerged lands beyond the bank by reason of bounding his lot by the lake. If he is not, then he had no right to occupy a foot of the lands belonging to the State of Illinois unless the state specifically grants him such lands or the use thereof.

(3) *The owner of a lot bounded by a body of water like Lake Michigan acquires no right at common law or in Illinois to occupy the land underlying said lake. The reason being that he can not own what the state does own.*

For the law of Illinois follows that of England, which, as Blackstone observes, "has universally promoted the "grand ends of civil society, the peace and security of "individuals, by steadily pursuing that wise and orderly "maxim of assigning to everything capable of owner- "ship a legal and determinate owner."

2 Blackstone Com. (Sharswood Ed.), p. 15.

If the shore owner has the right to transfer the land of the state to his own possession by filling it up or docking over it without having acquired a right thereto from such owner, it is obvious that there can be no determinate owner of the bed of the lake.

Under the common law of England, as declared by the Supreme Court of the State of Illinois and by the Supreme Court of the United States, a riparian owner on Lake Michigan, in the State of Illinois, has no title beyond the water line, unaffected by storm and wind. Hence has no right to fill in or dock out upon the submerged lands of the state.

We find that at a very early date the Supreme Court of Illinois decided that a grantee in a deed where the call was Lake Michigan as a boundary line, only took title to the line where the water stood when unaffected by storm. And the express reason for the decision was that Lake Michigan was practically an ocean, and hence the principles which at common law governed boundaries upon the ocean must be applied in that case. The following is the language of the court:

"A grant giving the ocean or a bay as a boundary by "the common law carried it down to ordinary high water "mark. *Cortelyou v. Brundt*, 2 J. R., 357. The doctrine, it is believed, is well settled that the point at

“ which the tide usually flows is the boundary of a grant
 “ to the shore. * * * On the contrary, the ordinary
 “ high-water mark indicated by the usual rise of the tide
 “ is his boundary. The principle, however, which requires
 “ that the usual high-water mark is the boundary on the
 “ sea and not the highest or lowest point to which it rises
 “ or recedes applies in this case, although this body of
 “ water has no appreciable tides. * * * Its bound-
 “ ary should be at that line where the water usually
 “ stands when unaffected by any disturbing cause. * * *
 “ These great bodies of water, having no currents like
 “ rivers and other running streams, cannot present the
 “ same reasons why the boundaries should be extended
 “ beyond the water’s edge, where it is ordinarily found,
 “ that apply to running bodies of water. Where such
 “ streams are called for as a boundary the thread of the
 “ current is held to be the line from each side. Such a
 “ rule could not, for want of a current, be adopted in this
 “ case. It would not be sanctioned, either by analogy to
 “ the rule or by reason.”

Seaman et al. v. Smith, 24 Ill., 524.

The deeds construed in that case *are the same as those*
under which the defendant now holds the shore owner-
 ship on Lake Michigan between 12th and 14th streets.
 (Pages 310 to 312 printed record of original case on file
 in this court.)

In *Trustees of Schools v. Schroll et al.*, 120 Ill., 518,
 the court adopted the same view in construing a grant
 bounding on a fresh-water lake. It held that the princi-
 ples of the common law govern the construction of such
 deeds, and found that thereunder the grantee took only
 to the water’s edge, and that the state owned the fee of

submerged lands. After laying down the general rule that the riparian proprietor whose land is bounded by a stream non-navigable at common law takes to the center it says: "But an entirely different rule applies when land is conveyed bounded along or upon a natural lake or pond. In such case the grant extends only to the water's edge." (Citing *Seaman v. Smith*, *supra*, with many other cases as authority.)

"Indeed, the controlling distinction between a stream and a pond or a lake is that in the one case the water has a natural motion, a current, while in the other the water is in its natural state, substantially at rest. And this is so, independent of the size of either. * * *

"And when lands are granted by the proprietor of both lands and stream, bounding such grant upon the stream, the grantee acquires right and title to the thread or middle of the stream. This right is grounded upon the presumption that the grantor, by making the stream the boundary, intended his grantee to take to the middle of the stream, and this presumption will prevail until a contrary intent is made to appear. (*Rockwell v. Baldwin*, 53 Ill., 19.) The right spoken of does not rest upon the principle that when a grant is bounded on a stream the bed of a stream to the thread or middle passes as incident or appurtenant to the bordering land, *for the bed of the stream is land, though covered with water, and land cannot pass as appurtenant to land*. As is said in *Child v. Star*, 4 Hill, 369, 'a conveyance of one acre of land can never be made by any legal construction to carry another acre by way of incident or appurtenance to the first.' The riparian proprietor claiming to the middle of the stream must show the bordering water to be a stream, and that his grant

“in terms or legal effect is bounded upon or along said “stream.” While the Illinois court and this court have differed as to the rule to be applied to a small pond (*Hardin v. Jordan, supra*), they have never differed as to the rule governing an inland ocean like Lake Michigan.

In the recent case of *The People v. Kirk*, 162 Ill., 138, the Supreme Court of Illinois considered a general act of the legislature of Illinois empowering park commissioners to extend boulevards over the waters of the lake in such a manner as not to interfere with the navigation of such public waters for the purposes of commerce, and authorizing park boards to appropriate the submerged land between the shore line and such boulevard to the purpose of defraying the cost of such extension, and to that end authorized such boards to sell such submerged land in fee simple. In pursuance of the act the Lincoln Park Board sold such submerged lands next to the shore between Indiana and Oak streets, in the City of Chicago, to adjoining lot owners in consideration of the later filling up said submerged lands, building the driveway and paying to the board \$100 per front foot. On bill filed by the attorney general the court approved the action of said board. It did not base its opinion on the ground that these riparian owners had the right as incident to their riparian ownership to fill in or dock out. But did hold that the state owned the lands under the water; that the same rule as to boundaries thereon applied that was enforced in the case of the open sea; and that the common law did prevail in Illinois. But the court pointed out that the adoption of the common law was the result of a statute and was subject to repeal by statute; and that the act in question did *pro tanto* repeal the common law; that the lands

in question were such parcels of land under water which the Supreme Court of the United States in *Illinois Central Railroad Co. v. Illinois*, 146 U. S., 387, stated might be conveyed by the legislature when such conveyance would not impair the public interest in the lands and waters remaining, and that the state having authorized the grant the attorney general could not complain; and that the disposition of these lands would not materially interfere with the navigation of the lake for the purposes of commerce and the right of fishery. The court significantly concluded its opinion with the declaration: "The rights of a shore owner on Lake Michigan
 " to fill up portions of the lake and thus extend his lands
 " does not arise in this case, and that question will not be
 " considered."

It will be noted that the court stated: "If the question of policy were one to be considered by the court
 " in the decision of this case, we would have no hesitation in condemning the action of the legislature in
 " passing the act as unwise and detrimental to the best
 " interests of the people of the state." * * * The
 " question before as is not one of policy or expediency.
 " but one of power."

Ibid, 148.

In *Revell v. People*, 177 Ill., 468, an information was filed by the People, by the attorney general, against one Revell, the owner of a certain tract of land bounding on Lake Michigan, who had built breakwaters in the lake in front of his land. The court said: "The appellant
 " here owned the premises bordering on the lake, but
 " his title to the premises extended only to the waters'
 " edge, and the fee in and to the lands covered by the

“ waters of the lake was vested in the state, and held by
 “ the state, in trust for the people. The fee being in the
 “ state, the important question presented is whether ap-
 “ pellant, without a grant or other authority from the
 “ the state had the right to go upon the submerged land
 “ and direct the construction complained of in the infor-
 “ mation. This state has adopted the common law as it
 “ existed prior to March 24, 1606—4th James 1st. In
 “ the absence of any statute of the state adding to the
 “ common law, and rights of the riparian own-
 “ ers, the common law as it then existed must
 “ control. Upon an examination of the au-
 “ thorities, we think it must appear that the
 “ act complained of in the information was a trespass
 “ upon the lands of the state; that the erection of the
 “ piers in the lake in front of appellant’s premises was a
 “ purpresture. But it is said in argument that the erec-
 “ tion of the structure complained of was not injurious
 “ to the state, and hence there was no basis for the inter-
 “ ference of a court of equity. We do not concur in
 “ that view. Although the act complained of was not
 “ injurious, and was not a public nuisance, still it was an
 “ unlawful act of such a character as would properly
 “ authorize a court of equity to interfere upon the infor-
 “ mation of the attorney-general, as is well established
 “ by the authorities. (*Ibid.*, 480.) * * * But aside
 “ from this position, it is apparent from an examination
 “ of this record that the construction of the piers was
 “ injurious to the state. * * * In other words, the
 “ erection of the piers has increased appellant’s land and
 “ diminished the land belonging to the state. This being
 “ so, it cannot be said that the construction of the piers
 “ was not injurious to the state. The appellant had no

“ right to build piers, or ‘wharf out’ into the lake for
 “ the purpose of making land, or increasing the bound-
 “ aries of his premises, nor had he the right to do any
 “ act which would produce that result. As has hereto-
 “ fore been said, the lands covered by the waters of the
 “ lake belong to the state, and appellant had no right, by
 “ any device whatever, to extend his boundary line be-
 “ yond the waters’ edge, and when he did so, an injury
 “ was inflicted upon the rights of the state which might
 “ be inquired into and abated in a court of equity on the
 “ application of the attorney-general.” (*Ibid.*, 483.)

Again, after refering to the case of *Shively v. Bowlby*,
 152 U. S., 1, decided by this court, and to which we will re-
 fer later on, the Supreme Court of Illinois said: “ Under
 “ the common law as declared in this case—and it is fully
 “ sustained by the authorities—it is apparent that appellant,
 “ as the owner of premises bounded upon Lake Michigan,
 “ took no title to any submerged lands under the waters
 “ of the lake, nor did he by virtue of being shore owner
 “ have any right to construct piers upon the submerged
 “ lands without the consent of the state.” (*Ibid.*, page
 486.)

These cases must satisfy the court that the Illinois Central Railroad Company, the owner of real estate in Illinois bounded upon Lake Michigan, has, under the Illinois authorities, no right whatever to occupy a single inch of the submerged lands of the state in front of their premises, and as shown in the petition, their premises stop, at the outside, at the red line upon the plat in the frontispiece, showing the breakwater line in the year 1869. All the structures to the west or land side of that breakwater line was confirmed by the act of 1869; no intrusion east of that line has ever been authorized by the State of Illinois.

B.

THE SAME RULE IS APPLIED BY THIS COURT IN PASSING ON RIPARIAN RIGHTS IN PROPERTY LOCATED IN STATES WHERE THE COMMON LAW PREVAILS AND BOUNDING ON A BODY OF WATER LIKE LAKE MICHIGAN.

The Supreme Court of the United States has always held that the State of Illinois is the owner of the lands submerged by Lake Michigan within the limits of the state, and has defined its title thereto to be the same as that enjoyed by the Crown of England at common law to lands submerged by tide water.

In *Hardin v. Jordan*, 140 U. S., 381, this court said:
 “ With regard to grants of the government of lands
 “ bordering on tide water it has been distinctly settled
 “ that they only extend to high-water mark and that the
 “ title to the shore and lands under water in front of
 “ lands so granted enures to the state within which they
 “ are situated, if a state has been organized and estab-
 “ lished there. Such title to the shore and lands under
 “ water is regarded as incidental to the sovereignty of
 “ the state—a portion of the royalties belonging thereto
 “ and held in trust for the public purposes of navigation
 “ and fishery—and cannot be retained or granted out
 “ by the United States. *Pollard v. Hagan*, 3 How.,
 “ 212; *Goodtitle v. Kibbe*, 9 How., 471; *Weber v. Har-*
 “ *bor Commissioners*, 18 Wall., 57.

“ Such title being in the state the lands are subject to
 “ state regulation and control, under the condition,
 “ however, of not interfering with the regulations which
 “ may be made by Congress with regard to public naviga-
 “ tion and commerce. The state may even dispose of

"the usufruct of such lands, as is frequently done by
 "leasing oyster beds in them, and granting fisheries in
 "particular localities; also, by the reclamation of sub-
 "merged flats and the erection of wharves and piers and
 "other advantageous aids of commerce. Sometimes
 "large areas so reclaimed are occupied by cities, and are
 "put to other public or private uses, state control and
 "ownership therein being supreme, subject only to the
 "paramount authority of Congress in making regula-
 "tions of commerce, and in subjecting the lands to the
 "necessities and uses of commerce. *Manchester v. Mas-*
 "*sachusetts*, 139 U. S., 240; *Smith v. Maryland*, 18
 "How., 71; *McCready v. Virginia*, 94 U. S., 391;
 "*Martin v. Waddell*, 16 Pet., 367; *Den v. Jersey Co.*,
 "15 How., 426.

"The right of the states to regulate and control the
 "shores of tide waters, and the land under them, is the
 "same as that which is exercised by the crown of Eng-
 "land. In this country *the same rule has been extended*
 "*to our great navigable lakes*, which are treated as inland
 "seas, and, also, in some of the states, to navigable
 "rivers, as the Mississippi, the Missouri, the Ohio, and
 "in Pennsylvania to all the permanent rivers of the
 "state; but it depends on the law of each state as to
 "what waters and to what extent this prerogative of the
 "state over the lands under water shall be ex-
 "ercised. In the case of *Barney v. Keokuk*,
 "94 U. S., 324, we held that it is for the several
 "States themselves to determine this question, and that
 "if they choose to resign to the riparian proprietor the
 "rights which properly belong to them, in their sover-
 "eign capacity, it is not for others to raise objections.
 "That was a case which arose in the State of Iowa,

“ with regard to land on the banks of the Missis-
 “ sippi, in the City of Keokuk, and it appearing
 “ to be the settled law of that state that the title of
 “ riparian proprietors on the banks of the Mississippi
 “ extends only to ordinary high water mark, and that
 “ the shore between high and low water mark, as well as
 “ the bed of the river, belongs to the state, this court
 “ accepted the local law as that which was to govern the
 “ case. The same view was taken in quite a recent case
 “ with regard to titles on the Sacramento river under
 “ the law of California. *Packard v. Bird*, 137 U. S.,
 “ 661.”

Hardin v. Jordan, 140 U. S., 383.

It was because the common law prevailed in Illinois
 and controlled the effect of bounding a lot upon a pond,
as distinguished from the great lakes, that the Supreme
 Court of the United States in this *Hardin* case refused to
 follow the Supreme Court of Illinois, declaring that the
 Supreme Court of Illinois did not properly explain the
 common law rule.

In the decision rendered by the Supreme Court of the
 United States in the pending case, the court says: “ So,
 “ also, by the common law, the doctrine of the dominion
 “ over and ownership by the crown of lands within the
 “ realm under tide waters is not founded upon the ex-
 “ istence of the tide over the lands, but under the facts
 “ that the waters are navigable, tide waters and navi-
 “ gable waters, as already said, being used as synonymous
 “ terms in England. The public being interested in the
 “ use of such waters, the possession by private individu-
 “ als of land under them could not be permitted except
 “ by license of the crown, which could alone exercise

“such dominion over the waters as would insure freedom
 “in their use so far as consistent with the public inter-
 “est. The doctrine is founded upon the necessity of pre-
 “serving to the public the use of navigable waters from
 “private interruption and encroachment, a reason as ap-
 “plicable to navigable fresh waters as to waters moved
 “by the tide. We hold, therefore, that *the same doc-*
 “*trine as to the dominion and sovereignty over and own-*
 “*ership of lands under the navigable waters of the great*
 “*lakes applies, which obtains at the common law as to*
 “*the dominion and sovereignty over and ownership of*
 “*lands under tide waters on the borders of the sea,* and
 “that the lands are held by the same right in the one
 “case as in the other, and subject to the same trusts and
 “limitations.” (Rec., 485.)

As long prior to this case it was settled by this court that the state owns the land under the waters of Lake Michigan, just as the crown of England owned the land below high tide, and that ownership of the shore of Lake Michigan was governed by the same principles that governed the ownership of the shore of the ocean, it follows as a corollary thereto in this court that as at common law the owner of land bordering on the ocean had no right to fill up or dock out beyond high-water mark over the lands lying below high-water mark, but adjacent to his property, without the consent of the crown, so the riparian owner on Lake Michigan within the limits of Illinois has no right to fill in or wharf or dock out over the state's submerged lands without its consent. Fortunately the very brilliant, learned and exhaustive opinion of Mr. Justice Gray in the case of *Shively v. Bowlby*, 152 U. S., 1, renders all argument or citation of authority with respect thereto superfluous. He says, at page 11: “By the

“ common law both the title and the dominion of the sea
 “ and rivers and arms of the sea where the tide ebbs
 “ all and flows, and of all the lands within high water mark
 “ within the jurisdiction of the crown of England, are in
 “ the king. Such waters and the land which they cover,
 “ either at all times or at least when the tide is in, are
 “ incapable of ordinary and private occupation, cultiva-
 “ tion and improvement, and their natural and primary
 “ uses are public in their nature for highways of naviga-
 “ tion and commerce, domestic and foreign, and for
 “ the purpose of fishing by all the king’s subjects.
 “ Therefore, the title, *jus privatum*, in such land, as of
 “ waste and unoccupied lands, belongs to the king as the
 “ sovereign, and the dominion thereof, *jus publicum*, is
 “ vested in him as the representative of the nation for the
 “ public benefit.”

On page 13 says the court: “ In England, from the
 “ time of Lord Hale, it has been treated as settled that
 “ the title in the soil of the sea, or of arms of the sea,
 “ below ordinary high-water mark, is in the king except
 “ so far as individual or a corporation has acquired rights
 “ in it, by express grant or by prescription
 “ or usage, * * * and that this title, *jus*
 “ *privatum*, whether in the king or in a subject, is
 “ held subject to the public right, *jus publicum*, of navi-
 “ gation and fishing. * * * The same law has been de-
 “ clared by the House of Lords to prevail in Scotland.
 “ * * * It is equally well settled that a grant from
 “ the sovereign of land bounded by the sea or any navi-
 “ gable tide waters does not pass any title below high
 “ water mark unless, from the language of the grant or
 “ long usage, it clearly indicates that such was the in-
 “ tention. * * * By the law of England, also, every

“ building or wharf erected without license below high
 “ water mark, where the soil is the king's, is a pur-
 “ preiture, and may, at the suit of the king, either be
 “ demolished or be seized and rented for his benefit if it
 “ is not a nuisance to navigation. Lord Hale, in Har-
 “ grave's Law Tracts, 85 Mitf. Pl. (4th Ed.), 145;
 “ *Blundell v. Catterall*, 5 B. & Ald., 268, 298, 305;
 “ *Attorney General v. Richards*, 2 Anstr., 603, 616;
 “ *Attorney General v. Parmeter*, 10 Price, 378, 411,
 “ 464; *Attorney General v. Terry*, L. R., 9, Ch. 425,
 “ 429, note; *Weber v. Harbor Commissioners*, 18 Wall.,
 “ 57-65; *Barney v. Keokuk*, 94 U. S., 324-334.

Shively v. Bowlby, 152 U. S., 14.

These cases establish the proposition that under the
 common law of England, which is the law of Illinois, the
 Illinois Central Railroad, by virtue of being the owner of
 lots bounding upon Lake Michigan, takes no title to any
 lands submerged under the waters of Lake Michigan,
 and that by virtue of such ownership it has no right to
 build wharves or docks in or upon said submerged lands
 or fill in said submerged lands and appropriate the same
 to its own use without the consent of the state; but, on
 the contrary, whatever submerged lands have been filled
 in by the Illinois Central and whatever docks have been
 by said Illinois Central placed upon any submerged lands
 without the consent of the state first had and obtained,
 must be awarded to the State of Illinois and the railroad
 perpetually enjoined from occupying or taking any more.

THE DOCTRINE THAT THE RIPARIAN OWNER COULD DOCK OUT TO NAVIGABLE WATER IN THE OCEAN, THE GREAT LAKES OR OTHER WATERS NAVIGABLE AT COMMON LAW AROSE AND WAS ORIGINALLY APPLIED IN PASSING UPON RIPARIAN RIGHTS IN STATES WHERE BY STATUTE THE STATE HAD TRANSFERRED ITS SUBMERGED LANDS OR THE USE THEREOF TO THE OWNER OF THE UPLAND.

Some years ago the doctrine crept into the decisions of some of the states that the riparian owner upon the seashore or upon the large inland lakes, by virtue of his owning the bank, possessed the right to dock out over the submerged lands belonging to the state so far as low tide or so-called navigable water. But these decisions were for the most part based upon early decisions of the United States Supreme Court. The latter decisions passed upon particular legislation in certain seaboard states, granting to the owner of the upland, the submerged lands to low water mark ; or properly followed the decisions of the courts of the state wherein the lands lay, which yielded to the riparian owner that part of the dominion and sovereignty of the state. They were not authority for the proposition that such rights belong to the riparian owner as a matter of common law, by virtue of his ownership of the bank; and did not justify the *dicta* which crept into some of the opinions of this court in later cases arising in states wherein no legislation had been enacted or decision rendered, giving to the riparian owner the right to thus occupy the submerged lands belonging to the state.

In all such cases the court held, and very properly, that where the owner of the upland was by local law permitted to use the foreshore below high water mark he could dock

out until he reached water practically navigable. For until he reached that point he would not interfere with commerce.

Mr. Justice Gray points out in the *Shively* case, *supra*, that the governments of several colonies, with a view to induce persons to erect wharves for the benefit of navigation and commerce, early allowed to the owners of land bounding on tide waters greater rights and privileges in the shore below high water mark than they had in England, but the nature and degree of such rights and privileges differed in the different colonies, and were for the most part created by statute. For instance, in Massachusetts, by virtue of an ancient colonial enactment, commonly called the Ordinance of 1641, but really passed in 1647, and remaining in force to this day, the title of the owner of the land bounded by tide water was extended through high water mark over the shore or flats to low water mark, if not beyond 100 rods. And it was because of this ordinance, vesting the title in fee of the flats in the owner of the upland, that the conveyance of land by such owner bounding it on the tide water, by whatever name, whether sea, bay, harbor or river, has been held to include the land below high water mark, as far as the grantor owns. Prior to this ordinance grants by the Colony of Massachusetts of lands bounded by the tide water did not include any land below high water mark.

See *Commonwealth v. Alger*, 7 Cush., 53.

In New Hampshire the same doctrine was recognized probably by reason of the territory having once been under the jurisdiction of Massachusetts.

In Rhode Island the owners of land on tide water have no title beyond high water mark, but by the apparent

sanction of a colonial statute of 1770, they have been accorded the right to build wharves or other structures upon the flats in front of their lands, provided they do not impair navigation and have not been prohibited by the legislature.

In Pennsylvania, by the established law of the state, the owner of lands bounded by navigable water has the title in the soil between high and low water mark.

In Maryland the owner of land bounded by tide water is authorized, by various statutes, beginning in 1845, to build wharves or other improvements upon the flats in front of his land and to acquire a right in the land so improved.

In Virginia, by virtue of statutes, beginning in 1679, the owner of land bounded by tide waters has the title to ordinary low water mark and the right to build wharves, provided they do not obstruct navigation.

In North Carolina statutes at different periods have either limited the grant of land bounded on navigable waters to high water mark, or have permitted the owners of the shore to make entries on the land in front, as far as deep water, for the purpose of a wharf.

Mr. Justice Gray, in the opinion in *Shively v. Bowlby*, *supra*, pointed out that none of the cases cited by the Supreme Court called for the laying down of the broad proposition that the riparian owner had a right to dock out over another's land without his consent. He says: "Some passages in the opinion in *Dutton v. Strong* (1861), 1 Black., 33; *Railroad Company v. Schurmeier* (1868), 7 Wall., 272, and *Yates v. Milwaukee* (1870), 10 Wall., 497, were relied on by the learned counsel for the plaintiff in error as showing that the owner of land ad-

“ joining any navigable water, whether within or above
 “ the ebb and flow of the tide, has, independent of local
 “ law, a right of property in the soil below high water
 “ mark, and the right to build out wharves so far at least
 “ as to reach water really navigable.”

Ibid.

Yates v. Milwaukee, 10 Wall., 497, as was said by Judge Gray, involved merely a case where the dock builder was a riparian owner on the Milwaukee river, a non-navigable river at common law. Under the decision of the Supreme Court of Wisconsin he was presumed to be the owner of the bed of the river to the thread of the stream, and hence had the right to build a dock on his submerged lands so long as it did not interfere with navigation. Judge Clifford's opinion in *Dutton v. Strong* was *obiter dicta* and was merely the opinion of a Maine lawyer speculating on a question of local real estate law, which, arising in Wisconsin, he decided according to the Maine doctrine—a doctrine borrowed from Massachusetts at the time of the union of Maine with Massachusetts Colony in 1692. The general proposition by him laid down had nowhere been the law before he spoke, and was *dicta*.

But as we started to show, the lax language sometimes employed, tending to recognize rights in a riparian owner over submerged lands which were never conferred upon him by the owners thereof, were all happily corrected by Mr. Justice Gray. In the *Shively* case he pointed out that “ none of the three cases (the “ *Dutton*, *Schurmeier* or *Yates* cases) called for the laying down or defining of any general rule, independent “ of local law, usage, or of the particular facts before the

“ court.” (p. 37) He says: “ In *Dutton v. Strong*,
 “ the only question involved was whether or not the
 “ defendants, being the owners and occupants of the pier,
 “ extending into Lake Michigan, at Racine, Wisconsin,
 “ were liable for cutting the hawser by which plaintiffs
 “ had fastened their vessel to the pier during the storm,
 “ in consequence of which she was driven by the force of
 “ the wind and waves against another pier and injured,
 “ and the only point adjudged was that the plaintiffs’
 “ vessel having been wrongfully attached to the pier,
 “ the defendant, after she had been requested and refused
 “ to leave, had the right to cut her loose, if necessary, to
 “ preserve the pier from destruction or injury. 1 Black,
 “ 33-34. There can be no doubt as to the correctness of
 “ that decision, for, even if the pier had been unlawfully
 “ erected by the defendants against the state, the plaint-
 “ iffs had no right to pull it down or injure it, and upon
 “ facts of the case were mere trespassers upon the de-
 “ fendants’ possession.”

He pointed out that in *Railroad Company v. Schurmeier*, the Supreme Court of the United States followed the decision of the Supreme Court of Minnesota, which held that by the law of Minnesota land bounded by a navigable river extended to low water mark at least, if not to the center of the river, and that the plaintiff’s title, therefore, extended to the water’s edge at low water mark and included the island. Mr. Justice Gray says the court treated it as too plain for discussion that the island in controversy, separated from the main land only by a depression, at which at low water there was no continuous flow or line of water, was included in the first survey, and that the river and not the meander line was the west boundary of the lot.

The learned justice explained *Yates v. Milwaukee*, *supra*, as we have just stated, and said: "It was recognized in the opinion that by the laws of Wisconsin, established by the decisions of its Supreme Court, the title of the owner of land bounded by a navigable river extends to the center of the stream, subject of course to the public right of navigation."

Ibid, 40.

The opinion of Mr. Justice Gray proceeds as follows:

"The later judgments of this court clearly establish that the title and rights of riparian or littoral proprietors in the soil below high-water mark of navigable waters are governed by the local laws of the several states, subject, of course, to the rights granted to the United States by the constitution," and that in *Weber v. Harbor Commissioners*, Mr. Justice Field said: "In the absence of such legislation or usage, however, the common law rule would govern the rights of the proprietor, at least in those states where the common law obtains. By that law the title to the shore of the sea, and of the arms of the sea, and in the soil under tide waters, is in England in the king, and in this country in the state. Any erection thereon without license is, therefore, deemed an encroachment upon the property of the sovereign, or, as it is termed in the language of the law, a purpresture, which he may remove at pleasure, whether it tends to obstruct navigation or otherwise. (18 Wall., 64, 65.)" He shows that in *Atlee v. Packet Co.* (1874), 21 Wall., 498, it was adjudged merely that a riparian owner had no right without statutory authority to build out piers into the Mississippi river from the Iowa side, as necessary parts of a boom to re-

ceive and retain logs until needed for sawing at his mill by the water side.

And that in *Railway Company v Renwick* (1880), 102 U. S., 180, affirming 49 Iowa, 664, it was by virtue of an express statute passed by the legislature of Iowa in 1874, that the owner of a similar pier and boom received compensation for the obstruction of access to it from the river by the construction of a railroad in front of it.

And that in *Barney v. Keokuk*, 94 U. S., 324, the court held, and Mr. Justice BRADLEY, in delivering the judgment of the court, summed up the law by saying:

“ It appears to be the settled law of that state (Iowa)
 “ that the title of the riparian proprietor on the banks
 “ of the Mississippi extends only to high-water mark, and
 “ that the shore between high and low-water mark, as
 “ well as the bed of the river, belongs to the state. * * *
 “ It is generally conceded that the riparian title attached
 “ to the subsequent accretions to the land, effected by the
 “ gradual and imperceptible operation of natural causes.
 “ But whether it attached to land reclaimed by artificial
 “ means from the bed of the river, or to sudden accre-
 “ tions produced by unusual floods, is a question which
 “ each state decides for itself. By the common law,
 “ as before remarked, such additions to the land
 “ on navigable waters belong to the Crown; but, as
 “ the only waters recognized in England as navigable
 “ were tide waters, the rule was often expressed as ap-
 “ plicable to the tide waters only. * * * Whether,
 “ as rules of property, it would now be safe to change
 “ these doctrines where they have been applied, as be-
 “ fore remarked, it is for the several states themselves to
 “ determine. If they choose to resign to the riparian

" proprietor rights which properly belong to them in their
 " sovereign capacity, it is not for others to raise objec-
 " tions. * * * It (the beds and shores of such
 " waters) properly belong to the states by their inherent
 " sovereignty, and the United States has wisely ab-
 " stained from extending (if it could extend) its survey
 " and grants beyond the limits of high water. The cases
 " in which this court has seemed to hold a contrary view
 " depended, as most cases must depend, on the local law
 " of the states in which the lands were situated. In Iowa,
 " as before stated, the more correct rule seems to
 " have been adopted after a most elaborate investigation
 " of the subject."

Justice Gray shows that this court accordingly held in
 the Barney case that the plaintiff had no right to recover
 possession of the lands below high water mark in front of
 his lots, which the city, pursuant to its charter, had filled
 up as a wharf and levee and had permitted to be occupied
 by the railroads and landing places of certain companies.

He pointed out that in *St. Louis v. Myers* (1885), 113
 U. S., 566, the United States Supreme Court held that no
 Federal question was involved in a judgment of the Su-
 preme Court of the State of Missouri as to the right of
 a riparian proprietor in the City of St. Louis, to maintain
 an action against the city for extending one of its streets
 into the river, so as to divert the natural course of the
 water, and thereby to injure his property; declaring that
 the rights of riparian owners were left by Congress to be
 settled according to the principles of the state law.

That in *Packer v. Bird* (1891), 137 U. S., 661,
 669, 670, Mr. Justice FIELD, speaking for the court,
 said:

" Whatever incidents or rights attached to the owner-

“ ship of property conveyed by the government will be
 “ determined by the states. * * * As an incident of
 “ such ownership, the right of the riparian owner, where
 “ the waters are above the influence of the tide, will be
 “ limited according to the law of the state, either to low
 “ or high water mark, or will extend to the middle of
 “ the stream.”

He showed that in that case the court affirmed the judgment of the Supreme Court of California, in 71 Cal., 134, and held that a person holding land under a patent from the United States, confirming a Mexican grant bounded “ by the Sacramento river, took no title “ beyond low water mark, either under the acts of “ Congress or by the local law.”

He noted that in *St. Louis v. Rutz* (1891), 138 U. S., 226, Mr. Justice BRADLEY, speaking for the court, said: “ The question as to whether the fee of the plaintiff as a “ riparian proprietor on the Mississippi river extends to “ the middle thread of the stream, or only to the water’s “ edge, is a question in regard to a rule of property “ which is governed by the local law of Illinois.” And that it was because the Supreme Court of Illinois held that the title of lands bordering on the Mississippi river extended to the middle of the main channel of that river, that it was impossible for the owner of an island on the west side of the middle of the river, and in the State of Missouri, to extend his ownership by mere accretions to the land situated in the State of Illinois. Mr. Justice Gray quotes approvingly from *Hardin v. Jordan*, 140 U. S., 402, in so far as the majority of the court held that this “ right of the states “ to regulate and control the shores of tide waters and “ the land under them is the same as that which is exer-

“ cised by the crown in England,” and the opinion of
 “ the minority, which begins: “ Beyond all dispute the
 “ settled law of this court, established by repeated de-
 “ cisions, is that the question of how far the title of a
 “ riparian owner extends is one of local law. For a de-
 “ termination of that question, the statute of the state and
 “ the decisions of its highest court furnish the best and
 “ final authority.”

This opinion in the Shively case declares that while Congress had the power to make grants of land below high water mark of navigable waters in any territory of the United States, yet Congress had never undertaken by general laws to dispose of such lands, but proceeded upon the theory that such land should be held as a whole for the purpose of being ultimately administered and dealt with for the public benefit by the state, after it shall have become a completely organized community. This court, in pursuance of the above principles, determined that a donation claim in Oregon, made under an act of Congress and bounded by the Columbian river, where the tide ebbed and flowed, did not, of its own force, have the effect of passing any title in the lands below high water mark, and that no such effect will be attributed to it by the law of the State of Oregon; that the jurisprudence of Oregon was based upon the common law as decided by its Supreme Court: that by the law of the State of Oregon, as declared and established by the decisions of its Supreme Court, the owner of upland bounding on navigable water had no title in the adjoining lands below high water mark, and no right to build wharves thereon, except as expressly permitted by statute of the state; that the state held the title in those lands, and unless they had been so built upon with its permission, the right to sell and convey

them to any one free of any right in the proprietor of the upland, and subject only to the paramount right of navigation inherent in the public, remains in the state, and that the defendant claiming title to the lands in controversy, which were below high water mark of the Columbia river, under deeds executed in behalf of the State of Oregon by a board of commissioners, pursuant to the statute of the state authorizing the sale of submerged lands below high water mark, owns a superior title to that claimed by the plaintiff in error under a deed from John W. Shively, who, while Oregon was a territory, obtained from the United States said donation claim.

Although by acts adopted prior to the acts of 1872-1874 the legislature of Oregon had made provisions by which the upland owner within the corporate limits of any incorporated town might build wharves, the court held that this act was not a grant, but simply a license, revocable at the pleasure of the legislature until acted upon or availed of; and that Shively not having availed himself of the license prior thereto, the act of 1872-74 cut off his right to avail himself of said license. This court affirmed the decision of the Supreme Court of Oregon, and did so because it followed the common law, which the highest court of the land where the property was situated declared to be the rule for decision in Oregon.

Shively v. Bowlby, ubi supra, 57.

It will be noted that this case is quoted with approval by the Supreme Court of Illinois in *The People v. Kirk*, 162 Ill., 151, and in *Revell v. People*, 177 Ill., 468. These latter cases also cite *Barney v. Keokuk, supra*, and *Weber v. Harbor Commissioners*, 18 Wall., 64, in sup-

port of the proposition that the state is the owner of these lands and has absolute jurisdiction over the same. We may safely assume, then, that the Supreme Court of Illinois and this court are in accord as to the rights of riparian owners in Lake Michigan.

The common law, which is declared by the decision of this court and of the courts of Illinois, as well as the statutes of Illinois, to be the law which must govern in determining the riparian rights of the railroad company in its lands bounding upon the waters of Lake Michigan, denies to said company any right to occupy or in any manner create purprestures upon the submerged lands belonging to the State of Illinois without the consent of the latter.

The learned counsel below claimed that evidence was introduced by the City of Chicago on the original trial (which evidence is in this record) tending to show that by usage riparian proprietors on Lake Michigan were permitted to erect wharves and piers into the lake in front of their own property. The evidence of J. Y. Scammon, Fernando Jones and Stephan A. Douglas is said to support this contention. The gist of Scammon's testimony is "that we considered, all of us, that we had the right to go out into the lake as far as we saw fit unless the state interfered with us." (Rec., 392.) The cross-examination by Mr. Ayer showed that he had in mind the rule in Illinois with reference to lands bounded by a river (page 396). Fernando Jones says: "That has not been so much a custom to actually do it as to talk about it and speak about doing it." (Rec., 402.) Senator Douglas says that "whether such right derives its validity from usage, custom, common law, statutory enactments, or constitutional provisions, remains, so

"far as I know, undetermined by the courts." (Rec., 406.) We hardly think that evidence of this character can be availed of to deprive the State of Illinois of its ownership of and control over the submerged lands adjacent to the borders of the lake.

The opposite view to that announced by the Supreme Court of Illinois with respect to its own property and with respect to land situated therein and to that announced by this court with respect to land situated where the common law prevails, has long been entertained by the Supreme Court of Wisconsin. The distinguished jurist who wrote the opinion for the majority of the United States Circuit Court of Appeals was for many years one of the greatest ornaments of the Wisconsin bar. Like most of the members of that bar he became greatly impressed by the force and learning of Chief Justice Ryan of that court. Hence it is not remarkable that he should predicate his opinion on the opinion of Chief Justice Ryan who announced the Wisconsin view in *Boom Company v. Riley*, 46 Wis., 244. (*People of the State of Illinois v. Illinois Central Railroad Company*, 91 Fed. Rep., p. 958; record page 1079.) The opinion of Ryan J. (*Boone, Co. v. Riley supra*), was based on *Dutton v. Strong supra*, *Atlee v. Pachet Co., supra*, and a former Wisconsin case. (*Diettrich v. Railway Co.*, 42 Wis., 248) It is not surprising then that Judge Jenkins should adopt the point of view prevailing in the court wherein he had imbibed his earliest conceptions of the law, just as Judge Clifford did in *Dutton v. Strong, supra*. But he forgot that he was adjudicating on Illinois titles, not on Wisconsin titles, and that his point of view, as above shown, is contrary to that entertained by this court, and by the Supreme Court of the State of Illinois, with re-

spect to lands situated in a state where the common law prevails, like it does in Illinois.

It follows, then, that under the law, as announced and administered in this court, and under the decisions of the Supreme Court of the State of Illinois, the Illinois Central Railroad Company has no right to occupy any portion of this territory, and should, by a decree of this court, be obliged to give the same up to the State of Illinois.

And this is sound statesmanship. As appears from the record in this case, the shore of Lake Michigan within the State of Illinois extends only some sixty-three miles. Chicago is the second city of the United States, and in a very short time may become the largest in the nation, if not of the world. It now occupies about thirty miles of the Lake Michigan shore. The dockage of that city already extends some twenty-two miles along the river's bank. If closed bridges be adopted and the commerce be driven from the river, it must all be provided for on the lake front of the city. But for this litigation, caused by the railroad company claiming the title of the state and city, the whole of this front would long since have been given up to commerce. It is wise and proper that the state, through its legislature, should have the sole right to own, lease out and enjoy, regulate and control, as owner, all rights of dockage along said lake front.

This is, and has been, for many years past, the case in New York City. The submerged lands adjacent thereto are, by grant of the state, owned by the city, and the right to dock out thereon is obtained by lease from the city, the dock board of the city controlling and regulating the same. Enormous revenues are derived therefrom by the city, while the privi-

leges accorded thereunder, and so regulated by the city, are a source of great benefit to those engaged in commerce, and of vast wealth to the City of New York.

At the present time the evidence shows that aside from short breakwaters to prevent the north current from cutting away the beach, there are no docks projecting into the waters of Lake Michigan within the limits of the State of Illinois, with the exception of a government dock and lighthouse situated at Waukegan, protecting the entrance to the river thereat; the dock on the north and south sides of the river at Chicago, erected by the United States Government seventy years ago, and from time to time extended to secure a safe navigation into said river; a pier at Evanston, constructed by the Northwestern University, in pursuance of a grant from the State of Illinois; a temporary pier erected in front of the World's Fair grounds at Jackson Park in pursuance of a grant from the State of Illinois; the docks and piers constructed by the Illinois Central Railroad Company north of Randolph street and south of Park Row, without license or authority of any kind from the State of Illinois, the pier constructed by the Illinois Steel Company in 1890 north of, and the government dock, at the mouth of, the Calumet river. The right to construct each and all of these piers, other than those constructed in pursuance of grant from the state, or constructed by the United States government, has at no time been recognized by the state, but on the contrary has constantly been challenged by the law officers of the State of Illinois.

The United States courts acquired jurisdiction over this case by virtue of the constitutional question presented by the repealing act of 1873. The purprestures created

were not authorized by the act of 1869, but were and are defended solely on the ground that they are authorized by virtue of the riparian ownership of the respondents; a right alleged to be incident to the ownership of real estate in Illinois. Had this been the only question in the case, the Federal courts could not have taken jurisdiction of the cause.

St. Louis v. Myers, 113 U. S., 566.

The State of Illinois is entitled to have the *lex loci* applied by the Federal court just as it would have been applied by the local court if the removal had not been taken. Fortunately there is no disagreement between the Federal court and the state court as to what the common law of England is, with respect to the questions here involved.

For the reasons stated this court should decree that all lands east of the breakwater line of 1869 shown on Greeley's maps, Exhibits N and O (Rec., 658; should be vacated by the railroad company and the title thereto vested in the State of Illinois to be rented out or otherwise used as its legislature may from time to time determine.

There is no questions of accretions involved in this case.

The Illinois Central Railroad does not claim the increase of land north of Randolph street and south of 12th street to be the result of accretions. At common law alluvion is the addition made to land by the washing of the sea. At common law whenever the increase of a navigable river or other stream is so gradual that it cannot be perceived in any one moment of time, this alluvion as fast as it forms becomes the property of the owner of the adjacent land to which it attaches itself.

Livingston et al. v. St. Clair Co., 64 Ill.,
56.

Ibid., 23 Wall., 46.

Banks v. Ogdon, 2 Wall., 57.

But this principle is independent of the law governing the title in the soil covered by the water.

Shively v. Bowlby, 152 U. S., 35.

Everything that has appeared above water east of the line of breakwater, as the same appears on the Morehouse Exhibit 10 and in our exhibits N and O, has been made and filled in by the respondents since April 16, 1869.

C.

THE COMPLAINANT'S SUIT HAS BEEN PENDING IN COURT EVERY MINUTE OF THE TIME SINCE 1883, AND THIS COURT HAS NEVER DECIDED THE TITLE TO THE PROPERTY HERE IN CONTROVERSY. HENCE THE PRINCIPLE, "THE LAW OF THE CASE," DOES NOT APPLY, ESPECIALLY WHEN ONE PART OF THE OPINION UNDER WHICH THE MANDATE WAS ISSUED CONTROVERTS ANOTHER PART OF IT.

But say counsel the *dicta* contained in looking to one portion of Justice Field's opinion in all this is aside from the point which we are called upon to discuss. You are trying to show that the Supreme Court erred in its former opinion in this case in laying down general propositions with respect to riparian rights. Whereas, whether it erred or not its decision is the law in this case. It is true that in a point of his opinion Justice Fields, referring to *Yates v. Milwaukee*, *supra*, and *Dutton v. Strong*, *supra*, does say that the riparian owner "is entitled to

"access to the navigable part of the water in the
 "front of which lies his land." (Rec., 494.)
 But, as above stated in another part of the same
 opinion therein (Rec., 483): "It is the settled law
 "of this country that the ownership of and dominion
 "and sovereignty over lands covered by tide waters with-
 "in the limits of the several states belong to the re-
 "spective states within which they are found, with the
 "consequent right to use or dispose of any portion
 "thereof when that can be done without substantial im-
 "pairment of the interest of the public in the waters.
 " * * * The same doctrine is in this country held to
 "be applicable to lands covered by fresh water in the
 "great lakes over which is conducted an extended com-
 "merce with different states and foreign nations.
 " * * * The public being interested in the use of
 "such waters, the possession by private individuals of
 "lands under them could not be permitted except by
 "license from the crown. * * * We hold, there-
 "fore, that *the same doctrine as to the dominion and*
 "*sovereignty over and ownership of lands under the*
 "*navigable waters of the great lakes applies which ob-*
 "*tains at the common law as to the dominion and sov-*
 "*ereignty over and ownership of lands under tide waters*
 "*on the borders of the sea,* and that the lands are held by
 "the same right in the one case as in the other, and sub-
 "ject to the same trusts and limitations. Upon that
 "theory we shall examine how far such dominion,
 "sovereignty and proprietary right have been en-
 "croached upon by the railroad company and how far
 "that company had at the time the assent of the state to
 "such encroachment." (Rec., 485.) This language
 plainly forbids the railroad company occupying the

submerged lands without the consent of its owner, the state. As all parts of the opinion are to be taken into consideration it is idle to say this opinion forecloses the discussion of the rights we claim.

In any event we believe it to be our duty to show to this court that under the law as finally settled by this court, as well as by the Supreme Court of the State of Illinois, this railroad is not entitled to any part of the land n controversy.

Should this railroad to-day attempt to fill in or dock out a yard east of the water's line either north or south of the property in question, and in front of its own property, the courts of Illinois, on the authority of the Revell case, would at once enjoin it; the United States courts on the authority of the Revell case, and had that case not been decided, then on the authority of the Shively case, would at once stop it.

Why then should this state have this imperial domain, the title to which has always belonged to it, taken away from it by this invading, trespassing, despoiling railroad? It has never granted the railroad the right to do it. It has not acquiesced in its so doing. On the contrary, for seventeen years it has been prosecuting this suit in an honest attempt to protect its property from the acts of this usurping railroad. Notwithstanding its prayers for relief, the railroad has gone on filling up acre after acre, most of it years after the suit was started, and now turns around and says: "We know the land is yours, we know we never got any title to it, we know we have not a shadow of right to an inch of it, under the law that prevails in this court as well as in the state court, but Judge Field when this case was up before held that a riparian owner, as incident to his

“owning the shore, had a right to dock out to navigable water, and we are entitled to have that opinion enforced.” But for the conflicting language in Justice Field’s opinion such an argument would be entitled to have force in the lower court. But it should have no force in this court if the court has never let go the subject-matter of the litigation. Seventeen years ago we asked for the domain taken from us, and prayed the court to enjoin its further appropriation. From that day to this the property here in question has been in litigation under this one suit *every minute of the time*. When decisions have been rendered appeals have been taken within apt time. The property has always been subject to the rule of *lis pendens*. At no time could any of the property be sold save subject to the final adjudication in the case. As a matter of fact none of it ever has been sold. Rights of innocent purchasers do not exist. Indeed no purchaser could be innocent, *i. e.*, ignorant that he bought the property subject to the final determination of this court as to the title thereof. *But the controlling fact is that THIS COURT HAS NEVER DECIDED THE TITLE TO THIS LAND.* It inadvertently laid down in one part of its opinion a sweeping proposition, to wit, a riparian owner has the right to dock out to navigable water, but in another part declared the state owned this land and the railroad could not encroach on it without its consent. The first proposition was correct when applied to many of the old colonies, erroneous when applied to a common law state. This court said in its mandate to the lower court find out if the structures were built in water practically navigable. But it did not tell the lower court to enter a decree in favor of the defendant or to enter any decree without taking further evidence or

without further action. It never has decided that the title to these filled in lands is in the Illinois Central and we are willing to risk our reputation for prophecy by predicting it never will. The facts in this case distinguish it from any cases cited by our adversaries, and leaves this court free to apply the law as it knows it to be, and to declare that the state has always owned this land and the railroad has no right to a foot of it. The principle of *stare decisis* does not apply, as there are no third parties interested and no final adjudication has been made. The principle, "the law of the case" does not apply for there has been no final adjudication of title by this court. Indeed the principle itself does not bind this court. This court makes the law. It does not blindly follow what it considers error, and work injustice. This court may feel that it more comports with the character and high standing of the court to have its decisions uniform. But the mischief has been done. *Shively v. Bowlby*, *supra*, is in direct conflict with the general principle of riparian ownership announced by Justice Field in this case, when applied to land situated in a common law state like Illinois; but is in harmony with all the other decisions of this court which discuss riparian ownership in common law states.

II.

ALL FILLING MADE AND ALLEGED DOCKS CONSTRUCTED WERE PLACED IN WATER PRACTICALLY NAVIGABLE, HAVING REFERENCE TO THE MANNER IN WHICH COMMERCE IN VESSELS IS CONDUCTED ON THE LAKES.

A.

The lower court erred in construing the mandate.

(1) *It did not regard its language or that of the opinion.*

We are aware that in *re Sanford Fork and Tool Co.*, 160 U. S., 247, this court held that the lower court must execute the decree of this court according to the mandate. But this court said that the opinion of this court delivered at the time of rendering its decree might be consulted to ascertain what was intended by the mandate. And the Circuit Court might consider and decide any matters left open by the mandate. And if the lower court misconstrues it, the upper court, on appeal or *mandamus*, might construe its own mandate and act accordingly. If this be so, then it is undoubtedly the right of this court to finally construe its own mandate and review the action of the lower court as to matters not finally decided by this court. In such event we see no reason why the intimation thrown out by the Supreme Court in *Gaines v. Rugg* (148 U. S., 244) may not be availed of, to wit: "As to the suggestion that the views adopted "by this court in its decision in *McDonald v. Belding*, 145 U. S., 492, decided by this court after "the present cases were decided, would, if applied to the "present case, have caused a different result in them, we "are of opinion that without conceding that such would

“ have been the result, this court cannot, on well established principles, permit the Circuit Court, *of its own motion*, to go back of or subvert what was settled by the opinion and mandate in the present cases.”

What the upper court decides must control the lower court. But an equivocal opinion which does not finally dispose of the subject-matter does not control this court or prevent its ordering the entry of such decree as shall conform to the law.

In the case at bar the question whether the state or the railroad is entitled to the land made since 1869 is still open and undetermined by this court. The lower court after taking evidence has entered a decree in favor of the railroad. That decree is now before this court for review. Upon looking into the opinion of this court in this very case we see that it holds that the bed of the lake belongs to the state, that the state's ownership and jurisdiction over this bed is the same as that which at common law the crown enjoyed over the submerged lands below high tide. That the appropriation by private individuals of lands under the waters could not be permitted except by license from the crown, and that the same principles must be applied to the lands under the waters of the great lakes that are applied to lands below high water mark on the ocean. We have seen that the court in the previous case of *Hardin v. Jordan supra*, had declared that the common law must govern the rights of the riparian owner in Illinois. V then, when the matter of title finally and squarely comes up in this court for determination, the evidence for the first time being fully presented, should not the *Shively* and *Revell* opinions be followed by this court and this court declare that this railroad is not entitled to occupy a foot of the state's land be

cause it never procured the state's license? It was said in the original opinion "the harbor of Chicago is of immense value to the people of the State of Illinois in the facilities it affords to its vast and constantly increasing commerce; and the idea that its legislature can deprive the state of control over its bed and waters, and place the same in the hands of a private corporation created for a different purpose, one limited to transportation of passengers and freight between distant points and the city, is a proposition that cannot be defended." (Rec., 501.)

Judge Showalter and the majority of the Court of Appeals in effect define the limit of practical navigability as twenty feet of water. Bearing in mind that the property now in question embraces one-third of the whole frontage of the Chicago harbor between the Chicago river and the south line of lot 21, the court upon inspecting defendant's Exhibit No. 10 (Rec., 967) will observe that one must go out a mile from the present shore to reach twenty feet of water, and will then realize that the effect of the opinion last referred to is to give back to the railroad company the right to seize and possess one-third of the Chicago harbor, the grant of which the Supreme Court so eloquently denied to the defendant corporation in its original opinion.

Under this opinion of the Court of Appeals the railroad company would be entitled to appropriate the submerged lands of the state to almost as great an extent beyond the extreme protecting breakwater as said breakwater is now east of the shore line, and would make the United States government with harbor-protecting breakwater a tenant of the railroad, subject to eviction by the railroad as it passes by it in its mad rush to reach alleged navigable water.

If a proposition to give effect to a grant which the state actually made cannot be defended, is this court ready to say that one-third of that harbor can be taken away not by grant, not by laches, but by the inadvertence of the court in failing to appreciate in one part of its opinion what it had really declared to be the law in another part of its opinion. But as we shall show later on these structures were not built for docks and are not used by the railroad as docks. They were built to afford greater room for the railroad to build "dead" and storage tracks, to secure greater space in which to store cars and other material. They were not built in aid of commerce and except as the docks north of Randolph street are used by tenants of the railroad, none of them are employed in connection with lake commerce. These facts did not appear in the original case.

II.

THE PURPRESTURES, NOW AS WELL AS AT THE TIME OF THEIR CONSTRUCTION, PROJECT INTO THE WATERS OF LAKE MICHIGAN BEYOND THE POINT OF PRACTICAL NAVIGABILITY, HAVING REFERENCE TO THE MANNER IN WHICH COMMERCE, IN VESSELS, IS CONDUCTED ON THE LAKE.

A.

The lower court erred in construing the mandate.

However, the court may hold as to the last point there is no doubt but that the lower court and this court are entitled to take the opinion, decree and mandate and find out from them what was meant.

In re Sandford Fork & Tool Co., 160 U. S., 256, and cases cited.

If we are to suffer from the inadvertence in one part of an opinion rectified in another part of the same opinion we are certainly entitled to have the mandate which issued thereunder most strictly construed against the defendant so that the error may do us as little injustice as possible. If we were confronted with our own grant instead of an erroneous hypothesis we would be entitled to that familiar canon of construction that all grants must be construed most favorably to the public and most strictly against those claiming against it.

Confronted with a claim of an alleged easement over our property with the creation of which we and our ancestors had naught to do, the product solely of a misconception or rather a misapplication of the law, we think we are entitled to have this misapplication reduced to its narrowest possible limits.

The affirmation of Judge Showalter's decree by the majority of the Court of Appeals was a cardinal error. But another error scarcely less serious was the rule applied in construing the mandate. The Court of Appeals were made familiar with the *Shively* case and the *Revell* case. But Judge JENKINS after quoting from the Wisconsin case *Brown Co. v. Reilly*, 46 Wis., 244, says (Rec., 1084; 91 Fed. R., 959): "That right" (the riparian right) "for that purpose should be liberally interpreted and upheld." Judge Woods, on the contrary, in the dissenting opinion, after referring to the *Shively* and the *Revell* cases, says: "We are therefore dealing
 "with a nakedly technical right which exists only because
 "it has been adjudged to exist. But for the judgment
 "on which it rests it has not even the merit of the celebrated stipulation for a pound of flesh. The mandate
 ..* * * must be enforced to the full extent of its

"necessary scope, but its scope should be determined by
 "a strict construction rather than by the liberal rule en-
 "larged upon in the opinion of the majority." (Rec.,
 1089; 91 Fed. R., 963.)

This latter view is sound and just and we think will
 meet with your approval. Assuming this, let us look
 into the opinion and mandate.

The opinion of Judge FIELD says (Rec., 494), quoting
 from the Yates case, which involved riparian owner-
 ship on Milwaukee river where the owner owned the
 submerged lands to the middle of the stream "he is en-
 "titled *to access to the navigable part* of the water on the
 "front of which lies his land, and for that purpose to
 "make a landing wharf or pier, for his own use or the
 "use of the public." And in quoting from *Dutton*
v. Strong, supra, Justice FIELD says: "The right must
 "be understood as terminating at the point of navi-
 "gability, where the necessity for such erections *or-*
 "*dinarily* ceased." If this means anything it means
 the point where ordinary vessels ordinarily go. The
 reason of it is this. When he owns the submerged land
 the riparian owner is entitled to dock out over his own
 land, but only to the point where he will not obstruct
 navigation. The reason he can go no further is that his
 ownership of the submerged land is subject to the right of
 navigation in the water that flows over it. To enforce
 this right of navigation the courts have defined his right
 to dock out over his submerged land to the point of
 navigation. The line where ordinary vessels are stopped
 by too shallow water to pursue ordinary commerce is the
 line where his right ceases. For if he should go beyond
 this line he would interfere with navigation which but for
 such structure would use the water thus enclosed.

If he could go beyond that line then the majority of boats, to wit, the average boat engaged in ordinary commerce, would be deprived of navigating the waters which flow over lands held absolutely subject to the right of navigation. If we should assume the railroad owned the bed of the lake to the centre some thirty miles away it would hold the land subject to this trust and could not build out on it beyond the point of practical navigation by the ordinary boat. This seems to be the view of Judge Fields. For he says: "This claim of riparian ownership with respect to the property north of Randolph street is well founded so far as the piers do not extend *beyond the point of navigability* in the waters of the lake." (Rec., 494.) This point of navigability must be the line beyond and in shore from which the water is not navigable. So in speaking of the property south of Twelfth street he says: "Its ownership of them depends upon the question whether they are extended beyond or *limited to the navigable point* of the waters of the lake." (Rec., 495.) This means the docks cannot project beyond that line which separates the water navigable from the water not navigable, and forbids the docks *penetrating* into such navigable waters. So at page 497 the court says: "The subject of judicial inquiry must be whether the piers or docks constructed by it after the passage of the act of 1869 extend *beyond the point of navigability* in the waters of the lake. * * * If it be ascertained upon such inquiry and determined that such piers or docks do not extend beyond the point of practicable navigability the claim of the railroad company to their title and possession will be confirmed, but if they or either of them are found on such inquiry to *extend be-*

"yond the point of such navigability then the state will be entitled to a decree." (Rec., 497.)

In other words, if they "penetrate into" such navigable waters they go beyond the "point" of such navigability and they belong to the state.

Assuming this to be the law, it is obvious that when that line is ascertained and delineated to the shoreward of which the waters of the lake are not fit for practical navigation that is the line which defines the seaward limits of defendant's right to fill in or wharf out. Judge Woods points out that this must be the meaning of the above language of the opinion. He says: "To the 'point' of practical navigability is the specific limitation, and 'the excess beyond such point' is to be removed or abated. These are expressions which make irrelevant any argument or citation of authorities to show that 'to reach' sometimes means 'to penetrate,' or that to 'reach navigable water,' reasonably implies some 'intrusion into it.'"

But in the opinion of the court Judge Jenkins says "To serve any useful purpose these piers must reach water of sufficient depth to float vessels and *alongside* of which vessels can be brought to be conveniently loaded or unloaded." (*Ibid.*, 958.) This is a most extraordinary extension of the doctrine contended for by the railroad. Under it the railroad has not only the right to penetrate navigable water, but can go into it far enough to afford access to the sides of the pier to vessels engaged in navigation. Not only that, but to allow the largest that plough the lake to go up to its sides. If this be true, it should not be subject to one boat. But it should penetrate far enough so as to allow several of the largest to tie up to its sides. Apply this principle to the

docks at 13th street. It is under this ruling entitled to go out a half a mile further to reach twenty feet of water. But it should not stop there. It should penetrate the lake far enough to allow two or three 400-foot boats to tie up to its sides, say a quarter of a mile farther.

The only authority cited for this amazing declaration is the opinion of Judge Ryan. Judge Jenkins quotes from his opinion as follows: "In either case to reach "navigable water reasonably implies reaching it with "effect to accomplish the purpose, the word often signifying *some penetration of the thing reached*. One is "not understood to stop outside the limits of a place when "he is said to reach it. He is understood to *enter it as far as may be necessary for his purpose*. The right in "question necessarily implies some intrusion into navigable water AT PERIL OF OBSTRUCTING NAVIGATION." *Ibid.*, 958.

"May enter it as far as may be necessary for his purpose"! Do you find any such declaration as this in the mandate?

But take Judge Ryan on his own definition. What navigation may it not obstruct? Boats engaged in practical navigation must be the answer. If such boats are entitled to be unobstructed in their use of navigable waters, is not the boat that draws ten feet of water obstructed by a dock in ten feet of water as much as the boat that draws twenty feet obstructed by the dock that penetrates to twenty feet of water? Is not the test then, according to his own definition, the point next the shore where boats engaged in practical navigation would be prevented from occupying the water if a dock be built in such water? This is the true test, and was so indicated by the mandate. The latter expressly declares that docks which penetrate as far as Judge

Jenkins and Judge Ryan think they should go belong to the state. You thus see at a glance upon what an erroneous hypothesis the majority of the lower court construed the mandate and reviewed the evidence.

Adopting the ordinary meaning of the mandate, let us review the evidence.

Before doing so may we suggest that if you are to establish a rule of law governing the State of Illinois it should apply to the whole lake front of Illinois—outside the Chicago harbor as well as inside; within the limits of Lake County as well as within those of Cook. And it is entirely immaterial whether cities are built on the shore to which boats approach or whether such waters are at the time frequented by boats or not. To the sea ward of the inshore line which marks the depth of water which may be practicable for boats to navigate in, the riparian owner may not fill in or dock out, regardless of whether such waters are at the particular moment navigated or not. It is well to bear this in mind, for as we shall presently see the railroad having thrown a cloud upon the state's property for nearly thirty years and thereby prevented the improving and utilizing of said property by the state or city for purposes of commerce, now comes in and seeks to take advantage of its own wrong by claiming that inasmuch as the waters in question have not been utilized for commerce, they therefore are not fit for practicable navigation.

But this is not all. Defendant, by appropriating the entire lake frontage south of and next to the mouth of the river, and provoking this law suit, has prevented commerce from using the shore south of Randolph street. As the record shows, the government, in consequence, has not kept the harbor dredged. The defendant's unlawful

structures have caught the silt and sewerage carried out by the river and brought into the harbor by the north current which prevails along the west shore of Lake Michigan, and the waters around the structures built by the railroad in deep water, have become more shallow. The defendant now claims that by reason thereof the structures, which were unlawful when built, as penetrating beyond the line of practical navigability, have become lawful by reason of the shallowing of the surrounding waters brought about by its own tortious acts, and therefore their structures have become lawful.

The railroad in effect says to the state: "It is really too bad! When we filled in this land we robbed you of your land covered by water practically navigable. But since that time we have kept everybody from utilizing the surrounding waters, we have occupied a part and have caused the rest to fill up. We now claim they are no longer fit for practical navigation, and, if so, the land which was yours becomes ours."

The mandate as drawn directs the court below to ascertain and determine whether these structures in fractional section 10 "extend into the lake *beyond the point of practical navigability* having reference to the manner in which commerce is conducted on the lake," and to ascertain and determine whether structures between 12th and 16th streets "extend beyond the point of navigability and to affirm the title and possession of the company *if they do not extend beyond such point.*"

(2) *The lower court erred in construing the inquiry to relate to the date of the hearing rather than to the time the bill was filed or the structures built.*

What ever rights we were entitled to when we filed the

bill the court was bound to award us. Defendant's counsel sought in the courts below to fortify the claims of the defendant by insisting below and getting the lower court to hold that our rights to our property must be governed by conditions now existing or rather which may hereafter spring into being, rather than those existing at the time our suit was brought, or at the latest when the filling in took place. As we shall presently show, at the time the structures north and south of the 13th street dock were built as well as at the time this suit was begun, twelve feet of water was the draught of the largest vessel that ploughed the lake. At the time the 13th street dock itself was built, sixteen feet was the draught of the largest vessel which ploughed the lake. By the majority opinion the lower court created a rule which makes the Chicago river an unnavigable stream—a rule which takes out of the category of commerce every vessel which ties up at its docks, for the limit of navigation of the Chicago river is sixteen feet. But we will speak of this more at length in its proper connection.

With becoming deference to that eminent judge, whose early demise we all lament, we are bound to say that the opinion of Judge Showalter is a distinct and novel contribution to jurisprudence affecting land titles in Illinois and a most unique addition to the literature of navigation. He says: "The point of navigability within the sense of this opinion, as I understand it, and of this mandate, is on the line which separates what I might call the surveyed belt around the margin of the lake from the enclosed navigable waters."

Well, no doubt he had in his mind's eye what he might call "a surveyed belt," but what it is no one knows. He certainly had no warrant under the evidence to speak of

any surveyed belt, and no authority of law to create said belt. Lands bounding on the lake in Illinois go to the water's edge unaffected by storm.

Seaman et al. v. Smith, 24 Ill., 524.

Lands to the seaward (in other words, submerged lands) belong to the state; and that is all there is of it. There is no evidence in the record of any surveyed belt, and the learned judge was rivalling Clark Russell in narrating a sea tale.

But that court, as if aware of this, tried to make the Supreme Court shoulder his definition, for he says: "This belt, within the authority of the opinion, extends to the point where vessels of the largest class continually used in lake navigation must stop in their approach to the shore. Such vessels, when landing, require from sixteen to twenty feet of water in which to float." (Rec., 1013.) But the Supreme Court, as we have shown, said nothing of the kind in its opinion, and we are entitled to have that opinion confined to its letter.

But the facts, as stated in Judge Showalter's opinion, are not correct. The bill in this case was filed March 1, 1883—fourteen years ago. It was then insisted that the company had without right erected and proposed to continue to erect wharves and piers upon the state domain. At that date the state asked that its title to the land occupied by said structures be determined, and that unlawful structures theretofore erected should be ordered to be removed and the company enjoined from erecting further structures of any kind. (Rec., 20.) The state is entitled to have its right determined as of the date of the filing of the bill for relief. If the stage of the water where a dock is to be built is to determine whether such

filling in and such docks are lawful, then as to docks built prior to the filing of the bill it must obviously be the stage of water when the water was filled in and the docks were built, which must be ascertained. Such docks as when built penetrate beyond the point of navigability, encroached upon the state's domain and were illegal. This domain thus encroached upon the state was entitled to recover at that time. The building of such docks as were threatened or begun in 1882 and the early spring of 1883, and which threatened to penetrate beyond the point of navigability, the state was at that time entitled to have enjoined, as such docks and filling in, if permitted to be built, would encroach on the state's domain which then lay to the seaward of the point of navigability. Hence the state is entitled to have the point of navigability as of that time determined, and an injunction as of that date restraining the construction of docks beyond the line of navigability of that date. If docks are built *pendente lite*, they are constructed at the builder's risk. *Miller v. Mayor*, 109 U. S., 392. They cannot be permitted to penetrate in the domain of the state beyond the line which the state was entitled to protect when its bill was filed. In no event could the riparian owner dock out into the water beyond the point practically navigable at that time under the plea that the owner was a prophet, and that what was then practically navigable would in a few years not be practically navigable for the commerce that with his prophetic eye he could foresee would use the lakes. As well might he claim that he could go out to forty feet of water because he believed and would predict that currents might sweep in the sand or the lake might so recede that after a few years the water of forty feet depth would be

but ten feet in depth. In other words, as to the docks theretofore built, the stage of the water at the time the wharf was built or the filling in was made must be the test as to whether the purpresture was made in water practically navigable, or not. As to docks built since the bill was filed, the stage of the water at the time the suit was brought in 1883, must govern. It is plain that if this right exists at all, it is a right which is incident to the ownership of the bank, and one which the owner may exercise at any time. But it is also true that at the point where his right terminates, the right of the state begins, and the state is entitled at any time to have that point ascertained and defined. Otherwise, no matter what decree is entered, defining the line, and enjoining any filling in beyond it, the riparian owner might thereafter violate the decree by asserting that it no longer bound him, as the conditions had changed and what was navigable when the decree was entered was no longer navigable. Such a rule would be no rule at all. If the right then can be, and must be limited, it must be defined and limited as of the date when the state asks that the right of the state be determined, to wit, at the date of the filing of the bill. In view of the fact that the railroad is claiming under a naked technical right, the suggestion of Judge Woods seems entirely appropriate:

“It may be that the riparian right ordinarily is not “concluded or exhausted by a single exercise of it and “that, the owner has the right at all times to reach the “point of practical navigability as it may exist from “time to time,” but the Supreme Court has not said that “of this case, and we need not and as I think should not “say it.”

Ibid., 962.

Permit us, then, to show you the depth of the water where and when these structures were built, and after that the requirements of the vessels engaged in commerce in the Chicago harbor.

B.

THE DEPTH OF WATER AT THE POINT FILLED IN AT THE TIME THIS SUIT WAS BROUGHT WHEN SAID STRUCTURES WERE BUILT AND WHEN THE EVIDENCE WAS TAKEN. IT IS ALL PRACTICALLY NAVIGABLE, HAVING REFERENCE TO THE MANNER IN WHICH COMMERCE IS CARRIED ON IN THE LAKE.

The court will be assisted in considering this question by the following maps offered by the state, which contain soundings made by the United States Engineers while engaged in the business of the United States War Department in improving, protecting and developing the harbor of Chicago. None of these maps or soundings were in the record which was considered by this court on the original hearing:

Exhibit C, Col. Graham's map of April, 1857. (Rec., 544.)

Exhibit B, Col. Cram's map of July, August and September, 1865. (Rec., 540.)

Exhibit P, Col. Reynolds' map of 1865. (Rec., 688.)

Exhibit A, Col. Wheeler's map of July-August, 1869. (Rec., 538.)

Exhibit D, Col. Houston's map of April 12, 1871. (Rec., 546.)

Exhibit E, Liljenkrantz's map of May, 1878. (Rec., 550.)

Exhibit Q, Capt. Lydecker's map accompanying his report of June 30, 1879. (Rec., 930.)

On the hearing the appellant offered a table of monthly variations of the level of the waters of Lake Michigan from July, 1859, to June, 1892. (Rec., 1016.)

Besides these, maps showing the soundings taken in 1894, made by Greeley, Carlson & Co., the recognized heads of the surveyors of Chicago, were offered in evidence as Exhibits N and O respectively. (Rec., 650.) A map made by Assistant City Engineer Alexander, showing the topography of the shore south of 14th street in May, 1887, was offered in evidence as Exhibit F. (Rec., 566.) The soundings taken in this territory by the witness Lord in May, 1887, and by the witness Tisdell, Exhibit G (Rec., 600), may be considered in connection with this map. Photographs taken by the witness, Wells, in March, 1888, and offered in evidence as Exhibits H, I and J (Rec., 616), show the condition of the shore at that time south of 14th street, while the photographs offered in evidence as Exhibits K, L and M (Rec., 638), and taken by the witness Shortall, show the condition of the same territory in November, 1894. (Rec., 638.) In addition to these maps the state offered the Moorehouse map, Exhibit 10, in the original case (Rec., 328) a copy of which is found in the decision of the Supreme Court, and the Moorehouse map, Exhibit 11 (Rec., 331), showing the piers contemplated in June, 1869; also the tracing Exhibit 12, original evidence, by Major Lydecker, U. S. Engineers, made November 3, 1880, showing plan of piers as approved in 1871, with modifications approved in 1880. (Rec., 334.)

The Whitefield photograph (Rec., 290), showing the docks and water north of Madison street in 1860, which

was offered by defendant as Exhibit C on the former trial, was referred to and used in taking the testimony. In addition thereto the map made by the surveyor, Carlson, and offered in evidence in the original case as Exhibit 13 (Rec., 384), is referred to as showing the shore line south of Park Row in 1881 and 1887 respectively. An inspection of these maps chronologically without any other evidence is an eloquent, if silent, argument against the defendant's position.

(1) *The filling in and so called docks north of Randolph street were all made in water ten to twelve feet deep, and deeper water was not gained by their construction.*

The Moorehouse map, original Exhibit 10 (Rec., 328), shows the north dock immediately south of the river was built in 1872 and 1873; the center dock was built in 1881, and south dock in 1880. Moorehouse, the civil engineer in the employ of the railroad, testified in its behalf in May, 1887, that the plat was a correct representation of the shore between the river and 16th street at the time he testified, and that the line so designated thereon showed the exterior line of the defendant's structure April 16, 1869. (Rec., 326.) When Moorehouse came to Chicago, in 1857, he says the shore line extended in a south-easterly direction from about the south-east corner of slip B (on said Moorehouse map) to a point on the line of Randolph street, extended about 500 or 600 feet east of the west line of Michigan avenue (or a point where the east line of the right of way of the Illinois Central Railroad Company south of VanBuren street, would, when produced due north, cut the line of Randolph street produced east). Moorehouse states the rail

road was engaged in filling in when he came here and kept up that process continually from that time to the day he testified in 1887. (Rec., 340-346). This water line appears in full on Plaintiff's Exhibit C (Rec., 544), made in 1857 by Col. J. D. Graham, of the United States Engineers. The dock C is marked on the Moorehouse map as built in 1867, but as a matter of fact it was not finished until 1871. As appears from Complainant's Exhibit A (Rec., 538), (the Wheeler survey and soundings of Chicago harbor made by the witness Casgrain, July 20, 1869, for the United States government under the direction of Col. J. B. Wheeler, captain of the United States Engineers, U. S. A.), there was, in 1869, merely a crib work enclosing said Dock C, with a space in the center marked "in process of being filled with earth," bounded by a wavy line, which indicates that on the east side of said line the dock was water. (Rec., 538.) United States Engineer Casgrain testifies that at the time he made this survey defendant was at work with dredges in Slip C, taking material from the slip and throwing it over to the east into the pile work which surrounds Dock C. There was nothing built into the lake at that time beyond the crib work of Dock C save the south pier of the Chicago river, which the United States government extended in 1869, so that it projected beyond Dock C some 608 feet. (Rec., 674.) The defendant, however, was getting ready in May, 1869, to cover the lake between the river and Randolph street, and for a distance of 1,460 feet to the east of Dock C, with a series of constructions, a plan of which Moorehouse prepared as Exhibit 11. (Rec., 330.)

In 1871 Moorehouse prepared for the defendant another plan which he furnished Casgrain, and which the

latter in turn drew on the Houston map (Exhibit D, Rec., 546) in dotted lines during the summer of 1871 (Rec., 546). These structures, as *proposed*, extended about as far east as docks 1, 2 and 3 were afterward built, but as *built*, these docks 1, 2 and 3 are a little wider and extend somewhat further south than those proposed in 1871. In 1869 the Illinois Central Railroad was filling the submerged lands on which to build these new structures and was working on Dock C, west of said submerged lands, but in 1871 was stopped by an injunction, sued out by the United States District Attorney. In the fall of 1871, however, the United States government permitted it to go ahead and it completed Dock C, and in 1873, Dock 1 (Rec., 332), and in 1880 and 1881 built Docks 3 and 2 respectively, as they appear on the maps (Complainant's Exhibits N and O, Rec., 658). As originally planned (in May, 1869), says Moorehouse, there were to be only two docks north of Randolph street, which were to extend into the lake from the east line of Doc C 1,440 feet. They were to be 600 feet in width and were to be separated by a slip 150 feet wide (Defendant's Exhibit 11, original case, Rec., 331). As built, there are three docks, each 1,000 feet long, 303 feet wide, save No. 1, which will average 240 feet in width. Between 1 and 2, and 2 and 3, are slips each 150 feet wide. (Greeley, Rec., 660.) The south line of Dock 3 is about coincident with the north line of Randolph street produced east. (See Rec., 658.)

The Dock No. 1 was enclosed about 1872 and completed in the summer of 1873, says Moorehouse. (Rec., 846-854.) But as just shown the water had been shallowed by the defendant in anticipation thereof for some years before. Moorehouse says he made soundings

for said dock immediately after the passage of the lake front act, and as early as May, 1869, and prepared a plan of the dock in May and June, 1869. It is to be presumed that any work that was being done in the immediate vicinity of the proposed docks north of Randolph street, and which would aid in their erection, would be vigorously carried on coincident therewith. It is easy to conceive that when the bill of 1869 was drafted, and long prior to its passage, the comprehensive plans perfected immediately after its passage were in the process of incubation.

Moorehouse testified that when the defendant built a dock it was usual to fill in with material brought by scows the territory proposed to be enclosed, until it became too shallow to float the scows; then an enclosing crib-work was built and then material was brought and dumped into the adjacent waters outside the enclosure, and by dredges thrown over the dock wall into the interior thereof. Thus the dock was filled up. (Rec., 877.) He testified in another place that Docks 1, 2 and 3 were built in this way (Rec., 855), and that when building dock No. 1 there was an opening left in this enclosing piling for quite a while through which scows passed with material to be dumped therein. (Rec., 874.)

Kennedy, who built and filled in Docks 2 and 3 for the defendant, testifies that he started to build the dock running from 14th to 16th street, in 1882, in the same way these piers were built, to-wit, by first dumping inside the enclosure until he got it too shallow for boats, and then dumping the material in the water outside the piling, and then with dredges throwing this material over into the dock. (Rec., 834.)

As just stated, Casgrain testified that Dock C was be-

ing built in just this manner when he made the Wheeler map, in the summer of 1869. (Exhibit A; Rec., 538.) The dredge was then working in Slip C, immediately to the west of dock C, in filling up said dock. (Rec., 674.)

From this Wheeler map it is apparent that at the time the act of 1869 was passed the east side of Dock C was still unfilled, and that by the process aforesaid large quantities of material must already have been dumped into the waters east thereof in order to furnish the filling for the east side of the dock. These waters are where Docks 1, 2 and 3 were built.

Moorehouse admits this Wheeler's map shows the condition of Dock C as it existed at the time the map was made July 20, 1869; (Rec., 870), and says that Dock C was not completed at the time he took his soundings in May, 1869, and that the Illinois Central Railroad Company was at work filling it in at the time. (Rec., 850.)

On the original trial of this case, in 1887, he testified that as late as July, 1871, the Illinois Central Railroad Company was engaged in filling in Dock C, and was contemplating the construction of piers extending further into the lake. The injunction issued by the United States court at that time was to prevent the railroad from prosecuting the work east of Slip C, or making any further encroachments upon the lake in any way, near the Chicago river (Rec., 339). Indeed, Complainant's Exhibit D, to wit, the Houston map of April 12, 1871 (Rec., 546), shows Dock C unfilled at that date. This evidence indicates pretty conclusively that the whole work was going on in 1869 and 1870, hand in hand, involving not only the completion of Dock C and the shallowing of the water east thereof. This shallowing was not only

the result of filling in Dock C, but was made as a preparation for the erection of the new docks 1, 2 and 3 in the water thus shallowed. But Moorehouse's testimony makes this presumption a fact, for, in response to the inquiry as to how much filling was done outside the breakwater, as it stood, April 16, 1869, between the date of the passage of the lake front act and its repeal, April 15, 1873, he says: "Between those two dates the pier No. 1, on this map, just south of the Chicago river, was partially constructed. There was a large amount of filling done outside of the breakwater above referred to in addition to that pier, principally north of Madison street." (Rec., 329.) Judge Harlan, in his opinion, says that subsequent to the vacation of the injunction (January 16, 1872) which the United States Government had obtained against the railroad (July 1, 1871), the railroad company resumed work on, and during the year 1873 completed dock No. 1, adjacent to the river and east of the breakwater of 1869. (Rec., 193.) It is clear, then, that the dock No. 1 was begun by defendant in 1869 and was completed in 1873.

What was the depth of the water at this point in the summer of 1869?

Fortunately, we do not need to guess it. The witness William T. Casgrain was at that time an assistant engineer in the United States army, and was engaged in a survey of the river and harbors under Col. Houston. He made the Wheeler map, Exhibit A (Rec., 538), took the soundings which appeared thereon and transferred them to the map himself. These soundings were taken between July 20 and August 20 of that year, and the figures placed thereon show the depth of the water in feet and tenths, that is the average of the water

at that point, where the figures are placed, during those thirty days. In order that the court may understand the soundings which are placed upon the various maps, we will explain the method employed by the United States in taking and platting such soundings as narrated by Casgrain. (Rec., 668-683.) It will be understood that the surface of the lake fluctuates a trifle every day, varying with the strength and direction of the wind. If the wind is off shore its tendency is to pile the water up on the east shore of the lake; if the wind is from the north or east it raises the water up on the Chicago shore. This rise is, of course, but a few inches. A stick is placed on the dock and an arbitrary point is fixed on that stick as zero. Below the zero point, if you please, the stick is marked into feet and inches, running down from the zero mark. To-day, we will suppose, the water stands at that dock so as to reach a point on that stick two feet below zero; to-morrow, the water may be two inches above two feet, or twenty-two inches below zero. The next day it may stand two inches below the two-foot mark, or twenty-six inches below zero. The average for the three days would be two feet below zero. This stick is read about every two hours of each day, while the soundings are taken, and thus is ascertained the average stage of the water for that day. The soundings reduced to the average stage of the water for that day are averaged with the soundings reduced to the average stage of water on each of the other days during which the soundings are going on, and thus the actual average stage of the water during that period of soundings is ascertained. Inasmuch as soundings cannot be taken in stormy weather, the daily fluctuations when soundings are taken during a short period, like two or three weeks,

is inconsiderable. The United States government keeps a daily record of the stage of the water, and has for sixty years past. From this record it has made up and printed tables, showing in curved lines the comparative height of the water for each month of each year during that time. The record from July, 1859, to July, 1892, is shown in the plat at page 1016 of the record. In 1838 the highest water known on the lake was recorded, and its height with respect to the land established by permanent monuments. This is the plane of reference of the Houston map, Exhibit D (Rec., 546). In 1847 the lowest water ever known before or since (save in February, 1873) was recorded. Its height was marked by permanent monuments by the City of Chicago, and it was just four and a half feet lower than the water of 1838. The City of Chicago, by ordinance, declared this extraordinarily low water of 1847 to be "city datum," or the level to which all grades and engineering levels should refer. In order that the government might compare the soundings of any particular year with those of a former year the government was accustomed prior to 1859 to place this zero mark on the stick at the low water of 1847, and to measure from this zero up the stick. This was called by the government "tide gauge" and the gauge was read up. In 1859 the United States placed in the lighthouse at Chicago a gauge, the zero of which was the high water of 1838. The gauge read downward. In 1869, when Casgrain took the soundings platted on Exhibit A of the Wheeler map (Rec. 538), the stage of water was 2 95-100 feet below the high water of 1838, or 1 55-100 feet above the low-water mark of 1847, *i. e.*, city datum. In other words, the water was at the date of these soundings just 1 55-100 feet deeper than it was in 1847.

The same is true of Exhibit D, the Houston map of 1871. (Rec., 546.) The water at the time these soundings were taken, April 12, 1871, was just 2 1-10 feet above *city datum*. (Rec., 672.) On the contrary, the zero gauge employed in taking the soundings for Exhibit C (made by Col. Graham in 1857, Rec., 544) was the low water of 1847. The zero employed when the soundings were taken which appear in Exhibit B (Cram's survey of 1865, Rec., 540) was the high water of 1838. But when Exhibit P (Col. Reynolds' survey of 1865 (Rec., 688) was made the zero was ordinary water mark, or two feet above *city datum*. Another fact that wants to be kept constantly in mind in inspecting all these plats of soundings is that, as a general rule, the water in Lake Michigan in the winter and spring when the lake is not open to navigation is a foot lower than it is in the summer when the lake is used for commerce. (Rec., 687.) Navigation does not begin on the lake until late in April and closes about November 1.

An inspection of Exhibit C, Graham's survey of 1857 (Rec., 544), shows that at that time the farthest east of the Illinois Central Company's breakwaters formed what was afterwards the west line of slip C. The land had not been filled in out to that breakwater, and, as shown thereon, the shore ran from the intersection of the original Illinois Central Railroad Company's right of way of 1852 with Randolph street, north-east to the south-west corner of the elevator B, then, as now, standing next east of and adjacent to slip B. Next east of the Illinois Central breakwater of 1857, and immediately south of the government pier, was a plan for an enclosed basin 521 feet long north and south by about 100 feet wide east and west, noted upon Graham's map as "Proposed Basin

for U. S." This was projected wholly within what is now the north half of slip C, then, as now, water, and was never built. Beyond this basin the south pier projected out a very short distance. As late as 1865 the south pier extended east of the Illinois Central breakwater of 1857 (now the west line of slip C), but 290 feet. (See scale Reynolds' map of 1865, Exhibit P, Rec., 688; Cram's map of 1865, Exhibit B, Rec., 541.) On the north side of the river and about 100 feet east of the east end of this breakwater, the north bank of the river turns abruptly to the north-east and forms a bend, the eastern end of which is the government lighthouse, which, at that time, and until 1865, marked the extreme east end of the north pier. The lighthouse itself was about 1,100 feet east of the east end of the south pier as it then stood, and the extreme depression of this curve was about 600 feet east of the east end of the south pier at that time. (See Cram's map, Rec., 541.) The north bank of the Chicago river preserves the same contour to-day (Greeley's map, Exhibit N, Rec., 658.) As appears on Graham's map (Rec., 545), in 1857 a sand bar lay within 150 feet and south of east of the north pier. Most of this bar was covered by less than ten feet of water, while south of that was another but longer bar which ran parallel with the shore pretty nearly due south as far as opposite Washington street. The water over most of this last mentioned bar stood less than ten feet deep. South of this last bar and about opposite Washington street was located the south buoy, the water south and west of which stood from eleven to fourteen feet deep. At the south-east corner of the breakwater of 1857 the water stood eleven feet deep, while within 400 feet east of said corner or farther west than the west line of the present Docks 1, 2 and 3,

you will notice the twelve-foot curve swept by to the north-east to a point east of the south pier and due south of the deepest depression in the north bank of the Chicago river. From this point the twelve-foot curve bowed for a short distance to the south and then swept north again to the river at the east end of the south pier, the water at that point being ten to twelve feet deep. The water stood twelve feet deep along the center of the breakwater of 1857. But north of the center a bar projected out from a point about 350 feet beyond the east end of the south pier. The water over this stood from seven and eight feet deep at the breakwater of 1857 to ten feet at the east end of the bar. If we should project on this map of Graham's (Rec., 545) the dock line of 1869, to-wit, the east line of Dock C in 1869, from which Docks 1, 2 and 3 spring out, as appears on Greeley's map, Exhibit N (Rec., 658), we would observe that the west line of Docks 1, 2 and 3 would lie east of the east end of the south pier as it was in 1857 to 1865. By examining this Graham map (Rec., 545) we see that the water of 1857 stood along the dock line of 1869 thus projected on said map at the following depths, to-wit: At the south bank of the Chicago river, twelve feet deep; opposite Water street, nine feet five inches; opposite Lake street, eleven feet; opposite Randolph street, eleven feet seven inches; while south of Randolph street it ranged from eleven feet five inches to twelve feet. Captain Dunham, who at the time the testimony was taken owned the largest towing company on the great lakes, and whose tugs subserved the same function in towing vessels into the Chicago river that pilot boats perform in the harbors of the ocean, was a witness for the complainant. (Rec., 573.) He

says it is necessary for the tug captain to know the depth of the water, as practically all vessels use tugs to tow them in, and the tugs must take them where the water is. When he came to Chicago in 1857, it was the general practice on account of the sand bar at the mouth of the river (shown in Graham's map, Rec., 545), for all vessels entering the Chicago harbor to sail south of the river's mouth and past the bar until due east of Van Buren street, then circle around the buoy to a point west of the range of the lighthouse. Capt. Van Dolson, a witness for the defendant, says they went west at Van Buren street to within 600 or 700 feet of the Illinois Central breakwater (Rec., 790), and then they would turn to the north, steer a little west of north-west of the lighthouse on the north pier until opposite the south pier, then round the east end of the south pier and come up the river. (Rec., 516.) William Harmon, a witness for the defendant, testifies that a direct channel was opened up opposite the mouth of the river by dredging out the north sand bar in 1864 or 1865 (Rec., 770), and that prior thereto vessels used to come from the north and sail down the lake as far south as the south buoy about opposite Van Buren street, and would then head north-west. He says there was a bend where the pier line makes a kind of decline to the north, and they used to head always for that point. (Rec., 771.) This point, we have already pointed out, appears on the map as being about 100 feet east of the east end of the south pier as it existed in 1857 to 1865, and but a short distance east of the breakwater of 1869. It is very plainly indicated on Graham's plat (Rec., 545), as well as on the Wheeler map. (Exhibit A.) Now, mark! Over this channel the entire commerce of Chicago passed prior to 1865.

Everywhere east and south of the breakwater line, afterwards constructed in 1869, all kinds of vessels used to ply clear up to the time of the Chicago fire in 1871. The Whitefield photograph introduced by the railroad on the former trial (Rec., 290), shows the situation at that time. The lighthouse is shown at the end of the north pier, the outside elevator B stands on dock B, and the water is shown coming up to what is now the west line of slip C, at that time the breakwater line of 1857. In the middle ground, heading south, is a brig sailing right along the channel just described, while a schooner is anchored right up against the shore south of Randolph street. Witness Merrill says the photograph is substantially a correct representation of the lake front at that time. (Rec., 695.) He states that up to the time of the fire in 1871 he was accustomed to see vessels engaged in ordinary practical navigation sailing about in the waters where this schooner was anchored, and has many a time seen them tied up to the dock just east of the elevator B (the dock line of 1857), and along the breakwater from the south pier to Eldridge court. (Rec., 695.) He recalls that, during the summer of 1871, just prior to the fire, he saw a good sized lumber schooner carrying a deck load tied up to the Illinois Central breakwater at Van Buren street. (Rec., 700.) Although the sand bar at the mouth of the river was cut through prior thereto, yet clear up to the Chicago fire all kinds of vessels engaged in practical navigation were accustomed to pass over this south channel, which occupied the very space now occupied by Docks 1, 2 and 3. (Rec., 696.) The witness Casgrain testifies to the same effect. (Rec., 679.)

Bearing in mind that the point of the bend, for which,

as Harmon states, all vessels headed after they had turned the south buoy and had gone west to within 600 feet of the Illinois Central Railroad breakwater opposite Van Buren street is not over 100 feet east of the east end of the south pier of 1857, and that these Docks 1, 2 and 3 are built from a line beginning east of the end of said south pier of 1857-1865, we need no other evidence to show that Docks 1, 2 and 3 are built right across the channel where all the commerce of Chicago had to go prior to 1865, and was to a large extent accustomed to ply as late as the Chicago fire. Greeley's map, Exhibit N (Rec., 658), shows Docks 1, 2 and 3 each and all extend entirely across this channel, and to a point directly south of the lighthouse on the north pier; while Merrill (Rec., 697), Dunham (Rec., 596), and Casgrain (Rec., 679), all testify that such is the fact. The Graham map, Exhibit C (Rec., 545), shows that just beyond the present eastern line of Docks 1, 2 and 3 in 1857 lay the sand bar with much more shallow water standing over it than the water which then stood west of where said piers began. Graham's map of 1857 shows that at that time the water at a point about midway the present length of Docks 1, 2 and 3 then stood opposite Randolph street fourteen feet deep; opposite Lake street, eleven feet deep; opposite Water street, ten feet deep. It thus becomes apparent that these docks were built in and across water where the entire commerce of Chicago was wont to ply up to the time of the fire, and that if the water was of the same depth at the time said docks were built as it was in 1857, the building of Docks 1, 2 and 3, beyond the dock line of 1869, would not only penetrate beyond the line of practical navigability, but would reach substantially no deeper water at their east end than at

ready existed at said dock line of 1869. Reynolds' map of 1865, Exhibit "P" (Rec., 688), shows that these Docks 1, 2 and 3 are built over the channel, which was then eleven to thirteen feet deep, and out to shallower water opposite and south of the lighthouse. At that time the water still flowed west of the outside breakwater of 1857. The depth of the water was then as follows:

At	Randolph Street.	Lake Street.	Water Street.	South Pier.
Breakwater line of 57-65.....	11.8	11.3	8.8	7.6
Due south of lighthouse.....	6.6	6.7	7.3	10.9
Half way out to line of light-house	11.3	11.9	11.8	13.1

This prepares us for a consideration of the Wheeler map of July, 1869 (Rec., 538), which was made about the time Dock 1 was begun.

Casgrain's soundings of July and August, 1869, as placed on the Wheeler map, (Rec., 538), show that at that time the crib work of the government south pier of 1857-1865 had been extended beyond the dock line of 1869, 608 feet. This extension was evidently just made, as it is marked on the map as built in 1869. At the south-east corner of Dock C, which had been enclosed a short time before, the water stood fourteen feet deep, invading the corner of the dock itself, while out at the east end of where dock 3 now stands, that is, due south from the government lighthouse, the water was but nine feet eight inches deep. On the dock line of 1869, opposite Lake street, or where the west end of pier 2 now stands, the water stood ten feet five inches deep, while where the east end of Dock 2 stands it then stood but ten feet deep.

Along the dock line of 1869, opposite Water street, it stood nine feet six inches deep, while at the end of Dock No. 1, as built, it then stood but nine feet deep. But it must be borne in mind that these soundings were taken in water that had already been filled up with dumpings cast therein by the railroad in building Dock C. In other words, by building out their Dock No. 1, they got into water six inches shallower; by building Dock 3 they reached water more shallow by four and one-third feet. They lost six inches in depth by running out Dock No. 2. This shows that the shallow pretense they now employ to justify the filling in, to-wit, the necessity of getting to deep water, or, what they claim, navigable water, has no true foundation in fact, and was never dreamt of at the time the docks were built. It is obvious that they were built merely to make land at the expense of the state. April 12, 1871, before navigation had commenced, and some months before the period of high water, Casgrain took some more soundings, which he placed on the Houston map of that date, complainant's Exhibit "D." (Rec., 546.) He procured the lines of Docks 1, 2 and 3 from the office of the Illinois Central Railroad Company, projected them on said map east of Dock C, and was told by Col. Houston to ascertain the amount of work contemplated by the company. Kellogg, one of the assistant engineers of the Illinois Central Railroad Company, went with him, located the work, measured the various docks, etc. (Rec., 673.) These lines projecting east of Dock C indicate the location of Docks 1, 2 and 3, substantially as they were afterwards built. It will be observed that at that time the water at the south-east corner of Dock C stood twelve and seven-tenths feet deep, while at the east end of what is now

Dock 3 it was but nine and one-tenth feet deep. At the south-west corner of what corresponds to Dock 1, it stood nine and seven-tenths feet deep. At the south-east corner of Dock 1 it stood nine and seven-tenths feet deep. To obtain a fair average, take the eleven soundings which run due north from the imaginary dock line C-D to the south pier, being the first line of soundings east of Dock C. They average ten and six-elevenths feet. Take the eleven soundings which form the second line of soundings west of the imaginary dock line A-B (which is about where Docks 1, 2 and 3 now terminate) run north to the south pier, and they average ten and a half. In other words, the railroad in 1871 would sustain a net loss in going out to alleged deeper water of one-tenth of a foot. Take the eleven soundings placed right outside of and next to the east line of Dock C, and they averaged ten and four-tenths feet of water. Is not the court satisfied by this of the insincerity of the claim that this railroad was not seeking to make land, but was only seeking navigable water? These figures were made by a disinterested agent of the government for the purpose of ascertaining what the Illinois Central proposed to do, and were made, as it were, under the eye of the latter and at their instance. Their accuracy cannot be gainsaid. It will further be remembered that these soundings were made after the Illinois Central Railroad had been shallowing these very waters for two or three years, and at a time when the water in the lake was a foot shallower than during the period of navigation. They established an average in 1871 of ten and a half feet of water at the east line of Dock C, from which these Docks 1, 2 and 3 were projected as well as all over the territory occupied by said piers.

Defendant introduced a map of soundings said by Moorehouse to be made by him in June, 1869, Defendant's Exhibit "3" (Rec., 952), which pretends to show the water to be from three to five lower than Casgrain's soundings of July, 1869, and April, 1871. It will be observed, however, that the soundings are few in number, and Morehouse does not know what plane of reference was used. (Rec., 842.) He admits the map, although bearing the designation "Plan C, 1869," was in a large part made long since that date, *e. g.*, the plan of the United States breakwater, the delineation of piers north of Randolph street as planned in 1871, the red line showing easterly end of pier, which was not built until 1871, the dock line established by United States engineers in 1871, the roundhouse south of Park Row, built in 1873, and the dotted line of breakwaters, built in 1870, were all made after the date at which he claims he made the map. (Rec., 841.) This map, alleged to be made in July, 1869, shows the south pier to be 1,224 feet long, whereas, Casgrain swears, and the Wheeler map (Rec., 538) shows, that in July, 1869, it was only 608 feet long. (Rec., 674.) We are afraid the map is not entitled to the highest degree of credibility, especially if we compare it with the Morehouse map, "Exhibit II" (Rec., 330), in the original suit, which, on the former hearing on May 5, 1887, Morehouse says he made in May, 1869 (Rec., 330), which contains no soundings and which he now says he did not make. (Rec., 857.) We may be pardoned in suggesting that his evidence is somewhat nebulous and in preferring the soundings and drawings of disinterested parties, *i. e.*, the United States engineers.

Inasmuch as Morehouse testifies that the soundings

were taken a block apart to get a general idea of the character of the work only, and that "these soundings" "did not allow a careful estimate to be made" as to quantities needed for filling in (Rec., 852), no particular attention need be given to them.

The only other evidence offered by defendant as to the depth of the water north of Randolph street is a map, Defendant's Exhibit "1" (Rec., 953), which, it is claimed by Morehouse, was made by one James Nocquet, since deceased, and is alleged by Morehouse to be made from data alleged to be furnished to Nocquet by one Tustin, by means of Tustin's book, Defendant's Exhibit "2." (Rec., 967-1007.) In this book the witness Kennedy says Tustin copied soundings taken by Kennedy and which were by Kennedy put in Kennedy's book. Kennedy's book is not produced—in other words, third hand from Kennedy's soundings. Tustin is alive, but was not produced. Kennedy, however, testifies that in February, 1873, he took soundings in front of dock C by chopping holes in the ice, which at that time was about sixteen to twenty inches thick. He thrust a pole down to the bottom and marked the depth of water in a book, in which he also recorded daily the distance from the top of the dock C to the water. These figures he called off at night to Tustin, who copied them, *as he supposed*, in Defendant's Exhibit "2." (Rec., 819.) Afterwards he saw Nocquet making Defendant's Exhibit "1" with Tustin's book in front of him. (Rec., 821.) All that Morehouse knows about the Exhibit "1" is that Nocquet in making the plat had Tustin's book before him. (Rec., 865.) Kennedy says he does not know what city datum is (Rec., 823); but he afterwards says that below the water line on the dock was a bench mark

or city datum, and that the figures he gave to Tustin show the depth of the water and the distance from the water to the top of the dock. (Rec., 826). Morehouse, on the contrary, states on cross-examination that the figures on the Nocquet plat show the depth below city datum. (Rec., 872.) But if we recall the fact that the water in winter averages one foot shallower than during navigation, we must add one foot to all these figures to get the water at these points during the navigable period of 1872. Inasmuch as these figures are reductions made by Nocquet from an alleged copy by himself of a copy by Tustin of soundings placed by Kennedy in a book, and Kennedy's figures are nowhere produced, the chance for inaccuracies is very great. But let us examine the map. The court will bear in mind that the sole excuse now given for building the docks was to place defendant's new water front of 1869, to-wit, Dock C, alleged to stand in shallow water, in communication with alleged deep water by filling in and building out 1,000 feet of dock to so-called navigable water. But if the court will closely scrutinize the alleged Nocquet map (Rec., 953), it will find a finely traced line marked on said map, delineating the outline of the docks as they were built. Morehouse says that these lines were not on the plat when it was made. If the court will take the soundings along the bottom line of the plat, the same being the east line of Dock C, it will find fifteen soundings, which will average each 8 11-15 feet deep. If it will take the fifteen soundings, which appear 1,000 feet east of the east line of Dock C, being the east line of said Dock 1, it will find they will each average just 8 4-15 feet deep. In other words, by building out 1,000 feet in search of deep water, the Illinois

Central Railroad in 1872, according to its own figures, would reach water just 7-15 of a foot shallower than where it started. If the increased stage of water during the period of navigation, to-wit, one foot, be added, we will find that, according to Kennedy's figures in the navigable season of 1872, the west line of Dock 3 was submerged in water substantially ten feet deep, while at the sea or east end of where it is built the water was but nine and one-third feet deep.

Lydecker's map, Exhibit "Q" (Rec., 930), shows the condition of the territory involved in 1879, the summer before Dock C was built. In the meantime Dock 1 had been built by the process of dumping in outside the dock line and then throwing the dumping over by dredges, Docks 2 and 3 had been prepared for by shallowing the water in the neighborhood of existing docks. Exhibit "Q," however, shows that just south, as well as east of the south-west corner of Dock C, the water stood nearly eleven feet deep. In a direct south line, as far south as Van Buren street, it stood ten feet deep on the average, while the twelve foot curve of 1878 cut right across where Docks 2 and 3 were built the two following years, and ran all along the north side of where Pier 2 was built. The twelve-foot curve of 1879 strikes Dock 3 just about half way its length. At the extreme eastern end of these docks, opposite Randolph and Water streets, respectively, the water was but twelve and a fraction feet in depth, running to a fraction over thirteen feet in the center. We think this pretty satisfactorily shows that the average depth of the water where these docks were built, north of Randolph street, ran from ten feet to twelve feet deep, when they were built, to-wit, from 1869 to 1881, and that defendant did not

reach any deeper water by constructing them than it enjoyed at the line of Dock C before they were built. It follows that the claim that they were built to reach navigable water was a mere pretext to steal land. As we will presently show the water where these docks were built was deep enough for practical navigation as carried on in Lake Michigan from 1869 to 1883, and was so employed.

But the best contemporaneous evidence as to the navigability of that water at the time the construction of these docks was commenced is furnished by the bill filed against the Illinois Central Railroad Company by the United States District Attorney for the Northern District of Illinois, in this court. (Rec., 462.) That bill was filed on July 3, 1871. It sets out "that the waters of Lake Michigan lying in front of the City of Chicago are, "and from time immemorial have been, navigable waters: "that the Congress of the United States, in order to "promote the convenience and safety of vessels navigating said waters and entering and departing from "said port, has from time to time appropriated and expended large sums of money in and about the mouth of "Chicago river, and has constructed two piers, called "the north pier and the south pier, respectively, extending from the north and south banks of said river "eastwardly for a considerable distance into said lake: "that the said Congress in the month of July, A. D. "1870, appropriated a large sum of money to construct "an outer harbor at Chicago, in accordance with the "plans of the engineer department of the United States: "that said proposed outer harbor is correctly represented by the plan hereto annexed, marked D. C. Houston, and made a part of this information, the red lines

“ representing the breakwater by which said outer harbor
 “ is to be enclosed; that the said south pier originally
 “ extended from a point near Michigan avenue east-
 “ ward; that the Illinois Central Railroad Company, a
 “ corporation duly established by law and having its
 “ place of business in Chicago, in said district, has from
 “ time to time wrongfully and without color of right filled
 “ up with earth a portion of said lake lying south of said
 “ south pier for a distance of over 1,000 feet eastward
 “ and southward, and has erected on such made land
 “ freighthouses and elevators, and has cut away said
 “ south pier at three different points, as indicated on
 “ said annexed plan, for the purpose of making slip
 “ basins, which it leases, and from which it derives a
 “ large income, and from said slip basins it excludes all
 “ vessels which do not pay toll to said company or
 “ its lessees; that since August, A. D. 1869, said
 “ company has commenced filling with earth that
 “ portion of said lake marked on said plan
 “ in proceess of being filled with earth,’ and
 “ since the commencement of the work on the said outer
 “ harbor has continued such filling, and, to hasten the same,
 “ has built in and over the navigable waters of said lake
 “ a railroad track, marked on said plan ‘ R. R. track on
 “ piles;’ that it is the intention of said company to continue
 “ to fill with earth to a point at least 600 feet east of the
 “ land last made by them as aforesaid; that the portion of
 “ said lake so filled by said company as aforesaid, and that
 “ portion of said lake which said company intends to fill,
 “ as aforesaid, was until said filling, and from time imme-
 “ morial had been, navigable and a common highway for
 “ all the citizens of the United States with their vessels to
 “ pass, repass and navigate at their will and pleasure; that

“ by reason of the filling up of said lake, as aforesaid, the
 “ navigation of said lake has been greatly obstructed and
 “ lessened, and such navigation will be still more obstructed
 “ and lessened and said outer harbor greatly damaged if
 “ said company shall further carry out its plans of further
 “ filling up said lake as aforesaid.”

The prayer of the bill was that the defendant be enjoined “ from further obstructing the navigable waters
 “ of said lake, and especially from obstructing or in any
 “ way encroaching upon such parts of the outer harbor
 “ by filling any portion of the same with earth or by
 “ building railroad tracks therein, or in any other manner, and to restrain said company and its lessees
 “ from exacting toll or other dues of vessels entering
 “ and mooring in said slip basin, and also to abate the
 “ obstructions to the navigation of said lake already made
 “ by said company, as aforesaid.”

In pursuance of this information a preliminary injunction was issued, which remained in force until January 16, 1872, when a stipulation was filed in said case, which we will hereafter consider.

This information clearly informs us of just what the railroad was doing at the time, and of the navigable character of the water which it had filled up and proposed to further occupy. But this brings us to the question of the navigability of the water filled in north of Randolph street.

(2) *Such water was then and is now practically navigable, having reference to the manner in which commerce is conducted on the lake.*

From 1869 to 1883, during which time these docks were filled in and built, ten and one-half feet to twelve feet of

water was to the seaward of the line of water at which practical navigation ceased, having reference to the manner in which commerce was at that time conducted in vessels on Lake Michigan. Captain Dunham, the dean of Chicago Tug-boat owners, says that he regards navigable water as any water outside the shore line where a boat would float; that any boat over five net tons may be enrolled under the navigation laws, and that such boats, if of keel build, would draw about two feet of water; that vessels engaged in interstate commerce now vary from two feet to sixteen to eighteen feet in draught. (Rec., 580.) But he says prior to 1869 most of the vessels did not draw over nine feet of water, while the majority of tug boats drew but six and one half feet. (Rec. 577.) All the witnesses agree that to-day the sail vessels are almost altogether devoted to the lumber trade and are almost all of wood, while the grain, coal and ore are now carried in the steam vessels, which are of metal. Van Dolson, one of defendant's witnesses, says that prior to the fire (1871) the largest wheat boats ran from ten and one-half to twelve feet draught. (Rec., 791.) At that time the lumber vessels were largely in the majority. The percentage of lumber vessels to all other kinds at that time, and as late as 1886 and after all these docks were built, was as two to one. They were built of wood, and Captain Dunham says their average draught, even as late as 1894, was but ten and one-half to eleven feet, some of them eight or nine feet. (Rec., 581.) In fact, the reports of the custom house show that as late as 1881, out of a total of 366 vessels owned in Chicago, 241 were schooners which carried 5,870,425 tons out of a total of 7,167,087 tons carried that year by all boats. (Rec., 942.) In other words, vessels of the draught indicated

carried the bulk of the commerce of Chicago harbor as late as the time this suit was started.

Captain, now Major Marshall, of the United States Engineers, says that navigable water is any water that can be navigated by the vessels engaged in carrying on commerce between the states, or between different ports in the state, and that vessels now range from five to eighteen feet draught. (Rec., 550.) Engineer Casgrain, who built about all the harbors in Lake Michigan (Rec., 668), testifies that he considers navigable water, water where any craft carrying freight can land, travel or navigate in. (Rec., 678.) He says also that the lumber trade was carried on between the harbors of Michigan and Chicago, Milwaukee and Michigan City, and that during the period of from 1867 to 1870 the harbors of Michigan were of the following depths, to-wit: Manistee, eight feet; Frankfort, seven feet eight inches; Ludington, seven feet eight inches; Muskegon, about ten feet; Grand Haven, ten to twelve feet, as the wind was; Holland, six feet; Pentwater, five feet; Kalamazoo, six feet; South Haven, eight feet. (Rec., 677.) We have already shown that where these docks, 1, 2 and 3, were built, the entire commerce of Chicago went prior to 1865, and these figures show that up to the time this suit was brought the water surrounding the land enclosed by docks 1, 2 and 3 was sufficient in depth to accommodate the bulk of the commerce of Chicago, and deeper than the waters of the harbors where that commerce came from.

But it is sufficient for our purposes to show the draught required for the average of that commerce. It cannot, for one moment, be argued that water which is deep enough to accommodate the average vessel engaged in

commerce is too shallow for practical navigation and beyond the point of practical navigability. As to that average we have the most reliable figures from 1869 right down to this date.

In 1881 at the time said Docks 2 and 3 were completed, 8,045 domestic sail vessels entered the port of Chicago, as against 3,466 steam vessels, or a little over twice as many sail vessels as other kinds. The tonnage of these sail vessels was 2,033,031, or an average of 252 tons per sail vessel. The tonnage of the steam vessels was 2,070,136, or an average of but 597 tons per steam vessel. (Rec., 941.)

In 1886, three years after this suit was started, some 6,006 domestic sail vessels entered the port of Chicago, as against 3,930 of steam, or a little less than twice as many sail as steam vessels. Their total tonnage was 1,500,413 tons, or an average for each vessel of 249 tons, while the tonnage of the steam vessels was 1,961,527, or an average of but 499 tons to a vessel. (Rec., 940.)

As late as 1894 there were 2 582 domestic sail vessels entered the port of Chicago, as against 4,707 steam vessels. The tonnage of the sail vessels was 782,740 tons, as against 3,534,977 tons for steam vessels. This shows an average of 303 tons per sail vessel and an average tonnage per steam vessel of but 751 tons. (Rec., 941.) The reason for the increase of metal boats we will explain in a moment. Babcock, the superintendent of the largest iron and steel ship building plant on the great lakes, and one of defendant's witnesses, corroborates these figures furnished by the custom house. He was a witness for defendant, and he gives a comparison of the average tonnage of the sail and steam vessels on the great lakes in 1884 and 1894, as follows (Rec., 815):

	AVERAGE TONNAGE.	
	1884.	1894.
Sail	189	238
Steamers (wood)	260	373
Metal	889	1,566
Average of whole lake fleet	217	369

The court will understand that the "Soo" canal, in the Sioux St. Marie river, governs the draught of all vessels engaged in the Lake Superior trade. (Rec., 811.) The court knows without being told, though it is all in the record, that this trade is enormous, and consists to a large extent of ore, grain and general merchandise.

Babcock testifies that the average tonnage of all vessels passing through the "Soo" was: In 1870, 378 tons; in 1880, 496 tons; in 1890, 833 tons, in 1894, 945 tons. (Rec., 815.)

On re-cross examination he says the draught of the boat of 217 tons would be seven to eight feet, of the 369-ton boat would be about eight feet, and of the 945-ton boat would not exceed ten feet. In other words, the average of the draught of water for the average boat of all kinds *on all the lakes*, from 1884 to 1894, would range from six to ten feet. (Rec., 816.) There is no getting away from these figures. Ten feet of water is the draught of the average boat in the Chicago harbor to-day, while in 1884 it was but six to eight feet. If, then, the test of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lakes, is the draught of the average vessel engaged in commerce, its draught in 1894 at the "Soo" was but ten feet, at Chicago eight feet. But Babcock

tells us that at the time he spoke (1895) the deepest draught in the "Soo" canal was from thirteen to fourteen or fourteen and one-half feet on the average. (Rec., 811.) Through this channel the Northwest, the largest vessel on the lakes, with a tonnage of 4,244 tons, was making its weekly trips from Buffalo to Duluth. In 1887 Harmon says the largest vessel was the Susquehanna, with a tonnage of but 2,500 tons.

Every foot of property filled in by defendant north of Randolph street outside the dock line of 1869 was made in water exceeding the demands of the largest commerce of the time when they were built, and the average of that of to-day. Greeley's Exhibit "N" (Rec., 658) shows soundings taken by him in 1894. The slips between the wharves show the water to average seventeen feet along their entire length. This depth was procured by dredging. But it was far less expensive and a great deal easier for defendant, at any time between 1869 and this date, to dredge next east of and parallel with dock C a channel of the same width and depth as slips 1 and 2. When so dredged this channel would put the whole of the east front of defendant's lands of 1859 in direct connection with the deepest channel of the Chicago river right alongside just as effectually as it is connected to-day by these wharves. The claim they wanted deeper water was a mere pretext to get more land.

As was said by Judge Woods in his dissenting opinion:
 " Equally irrelevant seems to us to be the suggestion that
 " a pier would be of no use without navigable water
 " alongside of it. If not outside of the inquiry com-
 " manded the proposition would be unavailing for the
 " purposes of the argument because the necessary depth

“at the sides of a pier extending ‘to the point’ of navigability is only a matter of dredging from the cost of which the railroad company should not be relieved at the expense of the state.”

Right here we might as well dispose of one of the contentions of counsel made in the lower court.

After United States District Attorney Glover procured his preliminary injunction in July, 1871, the United States engineers proceeded to farm out the submerged lands belonging to the State of Illinois south of the Chicago river and west of the exterior breakwater in the following manner, to wit: Upon August 16, 1871, a board of engineers consisting of Lieut. Col. Woodruff, Major D. J. Warren and Major D. H. Houston was assembled at Chicago in pursuance of the order of the War Department “to take into consideration plans for docks in the basin now being formed by the construction of the United States breakwater in that harbor, which docks are proposed to be built by the Illinois Central Railroad Company or others; to report their views thereon and to establish the limiting lines for said construction in that basin, reference being had to the interests of commerce and navigation therein.” (Rec., 467.)

The report of this board is found on pages 468 to 472 of the record. From this report it appears that a survey was made by Major J. B. Wheeler, of the corps of engineers, in 1869, under resolution of the House of Representatives of February 17, 1869. Extracts from Major Wheeler’s report are contained in said report of the board. Among other things he said: “A judicious arrangement of wharves and slips on the western or shore side of the basin would afford an abundance of dock privileges, by means of which the river would be

“relieved from its present crowded condition. * * *
 “I would mention in this connection the claim made by
 “owners of water fronts and the land under the water;
 “before an improvement of this kind is made, the ex-
 “act rights of the owners should be understood and
 “made known to all interested.” (Rec., 469.)

It would further appear that Major Wheeler's report was approved by the board of engineering officers, by Chief Engineer Humphrey, and that an appropriation of \$100,000 was made by the act of Congress, dated July 11, 1870, for enlargement of facilities at Chicago, Illinois, by means of which the outside breakwater was constructed.

The board recommended that a line produced south from the south pier 1,200 feet west of the west breakwater until it intersects the prolongation of the north line of Randolph street, be drawn. This line should thence be produced west 800 feet, and thence due south until it intersects an east and west line at the south end of breakwater as at present designed, and recommended that this be established as a harbor line, beyond which no wharves or other structures could extend.

The board states that the plan of wharves submitted by the Illinois Central Railroad Company south of the north line of Randolph street, besides being designed to extend 800 feet beyond the line they would recommend, seemed objectionable in making a space too wide for general purposes between the slips, thus diminishing unnecessarily the amount of room for vessels; also that the question of ownership to land on the shore between Randolph street and Madison street was then in litigation between the United States and Illinois Central Railroad, and the board recommended that no piers should be allowed to be built there until a settlement had been made.

The board says that "north of Randolph street there is no dispute as to the ownership of the Illinois Central Railroad." But the board does not affirmatively approve of the construction of docks by the Illinois Central Railroad Company north of Randolph street other than by use of the following language: "The following maps and papers are submitted with this report: first, map of Chicago harbor, showing harbor lines and plan of docks approved by the board." This is the Houston map, Exhibit D. (Rec., 546.)

September 29, 1871, General A. A. Humphreys, the chief of engineers, made a report to the secretary of war, which the latter approved October 4, 1871, and in this report he says: "The report of the board is herewith transmitted, and the approval of the harbor line proposed by it is respectfully recommended, together with so much of the plan submitted by the president of the Illinois Central Railroad Company as relates to wharves north of the north line of Randolph street prolonged." (Rec., 467.)

January 16, 1872, a stipulation was filed in the suit brought by United States District Attorney Glover, wherein it was stipulated that the injunctive order might be set aside and vacated, with leave to complainant to reinstate the same whenever the defendant should fail or refuse to conform to the limiting harbor lines established by the war department as aforesaid, and the direction of the proper engineering office of the United States in charge of the construction of docks and wharves in said outer harbor. In pursuance of this stipulation the information was dismissed, with leave to complainant to reinstate the same in conformity with the terms of said stipulation.

Counsel urge that this action of the War Department was sufficient to justify the erection of these docks. Counsel, however, are obliged to admit that when the harbor line was established in 1871 and the plans for Docks 1, 2 and 3 were approved, there was no statute in force authorizing the Secretary of War to exercise the authority he did. But, counsel point out that immediately after the decision against the railroad in this case section 12 of the River and Harbor Act of August 11, 1888, was enacted which provided as follows: "Where
 "it is made manifest to the Secretary of War the establishing of harbor lines is essential to the preservation and
 "protection of harbors he may and is hereby authorized to
 "cause such lines to be established, beyond which no piers
 "or wharves shall be extended or deposits made except
 "under such regulation as may be prescribed from time
 "to time by him." (25 U. S. Stat., 425.)

Counsel then pointed out that on September 11, 1890, the Secretary of War appointed another board of engineers to consider and report upon the question of harbor lines for the City of Chicago. The report of the board was transmitted on September 19, 1890, through the office of the chief of engineers to the Secretary of War. September 22, 1890, the line recommended by the board was approved by the Secretary of War, and this line prolonged the line fixed in 1871 from Van Buren street south to the southern limit of the outer harbor. (Rec., 942-950.)

From this action taken by the War Department pursuant to authority conferred by act of Congress, subsequent to the former trial, counsel argued below that the action of the War Department on this subject concluded this inquiry in the pending case, and cited many cases alleged to support this proposition, especially *Pennsylvania v. Wheeling Bridge Co.*, 18 How., 421.

But an inspection of the numerous decisions growing out of the Wheeling Bridge case shows that the principle which underlies that litigation has no bearing upon the question at issue. The Wheeling Bridge case first came up in the 9th Howard, page 647, from which it appears that the State of Pennsylvania filed a bill to enjoin the Wheeling and Belmont Bridge Company, William Otterson and George Croft from erecting a bridge across the Ohio river, between Zanes' Island, in the State of Virginia, and the Virginia shore at Wheeling, on the ground that the bridge would hinder and prevent passage of the citizens of the State of Pennsylvania along the said river under said bridge, with their steamboats, to the great damage and nuisance of the citizens of Pennsylvania, as well as all other citizens of the United States, and to their irreparable injury.

It will be noted that the bridge was erected wholly on Virginia soil. Subsequent to the bringing of the suit, the legislature of the State of Virginia, which had originally authorized the construction of the bridge, passed an act declaring that the bridge as constructed was of lawful height.

The Supreme Court, upon motion for an injunction, referred the matter to Chancellor Walworth, as special commissioner, to take evidence and ascertain whether or not the bridge would obstruct free navigation in the Ohio river.

In the 11th Howard, at page 528, it appears the commissioner having made his report, the case was set down for hearing in the United States Supreme Court. In the 13th of Howard, page 518, it appears the case came up upon the merits, and the court held that upon the finding

of the commissioner the bridge was a nuisance; that the State of Pennsylvania was entitled to maintain its bill for an injunction to remove the obstruction; not by virtue of its sovereignty, but because it had a special and private interest, to-wit: public improvements terminating at Pittsburg and Beaver, consisting of canals and railroads, which would be injured by the interference with the navigation of the Ohio as aforesaid. The court found that Virginia, in consenting to the erection of Kentucky into a state, had entered into a compact with regard to the free navigation of the Ohio, which Congress confirmed in admitting Kentucky into the Union, and that the Ohio river being a navigable stream, was subject to the right of Congress to aid commerce thereon and over that river said power had been exerted; that the structure was a public nuisance, in that it interfered with navigation, and imposed special damage upon the complainant, wherefore it was entitled to maintain its bill.

Subsequently Congress passed an act declaring the bridge to be a lawful structure, and further declaring the bridge to be a post road for the passing of mails; and the Supreme Court of the United States, in the 18th of Howard, page 421, held while the bridge might be an obstruction in fact, it was not so in contemplation of law, after the passage of the act of Congress mentioned. The court declared that while the act of Congress could not have the effect and operation to annul the judgment of the court, or deny the rights determined thereby in favor of the plaintiff, yet that part of the decree directing the abatement of the obstruction was executory—a continuing decree—requiring not only the removal of the bridge, but enjoining the defendants against any reconstruction or continuance thereof, and that the plaintiff's

right to damages or to the removal arose out of the unlawful interference with the enjoyment of a public right, which public right was under the regulation of Congress; and Congress, having declared that to be lawful which was theretofore unlawful, the complainant's right to restrain the continuance of the nuisance was gone.

But in the case at bar the State of Illinois is not complainant on account of the interference by the railroad company with navigable waters, or because the defendant is creating a nuisance therein. But it does complain that the defendant is occupying the state's lands. We know of no power in the United States to take lands away from the state and confer it upon a third party by its War Department creating imaginary dock lines. The State of Illinois did not file this bill to protect a public right. It did file it to protect its private right of ownership of the submerged lands under the waters of Lake Michigan. As a matter of fact all that the War Department has assumed to do and all that Congress authorized it to do is to establish a line beyond which the people who are entitled to occupy the submerged lands with docks cannot go with said docks without running against the United States government, enforcing the commerce clause of the constitution. The war department did not pretend to say who owned the submerged lands or who could build docks thereon, and it had no more power to directly or indirectly confer title to the said submerged lands upon the defendant than it would have to take the city hall of the City of Chicago and give it to one of your honors as a private residence.

It may be true that the United States, as an attribute of its sovereignty, may have the power to condemn any property belonging to the state it may see fit to use.

Kold v. United States, 91 U. S., 367.

So it may authorize others, for instance a railroad, to take the lands of others in aid of commerce. But, if it does, it or its agent must pay for it.

Cherokee Nation v. Kansas Ry. Co., 135
U. S., 658.

This principle is incorporated in the Constitution of the United States by the fifth amendment thereto, and has frequently been enforced by the Supreme Court. For instance, where officers of the government took property for purpose of getting a head of water to supply the capital.

U. S. v. Great Falls Mfg. Co., 112 U.
S., 656.

So in the case of taking a lock and destroying the ability to collect tolls therefrom in order to improve the navigation of the Monongahela river.

Monongahela Navigation Company v. U.
S., 148 U. S., 312.

In view of the language of this last opinion, which holds that the power to regulate commerce is subject to all the limitations imposed by constitution, and among them that of the 5th amendment, a question might be made, whether Congress can occupy any portion of the bed of the lake for a light house, or a bridge, or a fort, without being liable to pay the state therefor. But be that as it may, congress has not assumed, by authorizing the construction of harbor lines, to take any property. It merely says, to all land owners, if you build to the seaward of the line our war department has prescribed, we will consider such structure to be an interference with commerce. It is obvious that this

does not add to or take away from the title to the land either inside or outside of such line. The state might build on its own land beyond such line, and if it did the War Department might tear down the structure, but this would not take the land on which it was built away from the state and transfer it to the government. In any event, if anyone should claim the right as appointee of Congress to occupy the lands of the state in aid of commerce, the delegation of power to said appointee must clearly appear, and the burden is upon it to produce it. In the case at bar, there is no pretense that Congress ever appointed the Illinois Central Railroad as its agent to occupy the lands of the state.

(3) *The structures south of Park Row were built in water from 12 to 15 feet deep before the defendant railroad shallowed it; while the dock at 13th street started in water at its shore end as deep as the present limit of navigation in the Chicago river.*

Everything appearing on Greeley's map "O" (Rec., 658), east of the Morehouse breakwater line of 1869 (which it will be remembered, says Morehouse, shows the eastern limit of filling and structures made prior to the passage of the lake front act), has been manufactured by the Illinois Central Railroad Company since April 16, 1869 (Rec., 343). After that date, and prior to April 15, 1873, Morehouse says defendant did a large amount of filling in the lake near 14th street and near what is known as the Weldon shops. There was also a new engine house constructed at Weldon upon a portion of the filling so made. This is marked on his sketch (Defendant's Exhibit 3, Rec., 952), "15 stalls to be built," and is the north one of the round houses shown on most of the later maps. Exhibit "E," Lilgenkranz map (Rec., 551). A large

amount of new breakwater marked on Morehouse's map (Rec., 328), "Built 1870," was, from 1870 on, constructed from 12th street to the north line of lot 21 (Rec., 329). Since 1873, and prior to 1887, Morehouse says the Illinois Central Railroad made a large amount of filling at Weldon (between 12th street and lot 21), and built additional protections south of 12th street. It built the dock between 12th and 13th streets in 1885. (Rec., 332.) It will be borne in mind that prior to the October fire of 1871, the tracks of the Illinois Central Railroad extended on a pile bridge through the waters of the lake from Randolph street to about 14th street (Rec., 336), and the lake was not filled out to the breakwater of 1869, as far south as 12th street. (Rec., 342.) Indeed, prior to 1870, there was no filling east of the shore line of 1852, as the same appears on dotted lines on Morehouse map between 12th and 16th streets (Rec., 328), save where the three buildings stand inside and west of the breakwater marked by the red line of 1869. (Rec., 342.) These are the south round house and two machine shops shown in most of the maps.

The evidence shows that in 1870 the Illinois Central Railroad commenced to build in the waters of Lake Michigan a line of enclosing piling beginning at the north of the breakwater of 1869, where it would be intersected by Park Row, and extending in a south-easterly direction to a point opposite 14th street produced. This is approximately indicated on the Morehouse map (Rec., 328), by the words "built in 1870." Its position is definitely shown on Liljenkrantz's Exhibit E, made 1878 (Rec., 560), and Lydecker's map, Exhibit "Q." (Rec., 930.) Morehouse testifies that this breakwater was not

contemplated when he made defendant's Exhibit 3 (Rec., 952), in June, 1869. The round house marked "15 stalls to be built," was not in existence until 1873. Everything east of the breakwater line of 1869 was water at that time, says Morehouse. Casgrain testified to the same effect. (Rec., 675.)

Merrill, who swam, fished and sailed over all the waters of the lake next to the breakwater of 1869 for the fifteen years prior to 1870, save a few years while he was in the army, testified that up to the time of the Chicago fire, right at the old breakwater at Park Row, the water was not less than nine or ten feet deep, and the farther south you got towards 16th street the deeper it became; that it would average from nine to twelve feet deep the whole distance down to 16th street just outside the line of breakwater of 1862. (Rec., 699.)

John G. Shortall sailed, fished and boated over the same territory ever since 1860. He says that prior to 1869 the water was not less than from eight to twelve feet deep along the line of the breakwater of 1869 as far south as 16th street. (Rec., 707.) In fact he says the current struck the shore sharply from 12th to 16th streets, and the water was always deep next to the shore at that point. (Rec., 706.)

Morehouse says he knows the water "was very deep along that old breakwater there for a number of years." (Rec., 864.)

Casgrain's soundings of 1869 (Wheeler's map, Rec., 538), show that the twelve-foot curve in 1869 came way west and inside of the line where the breakwater of 1870 was afterwards built, while the water right against the 1852 breakwater at Park Row stood twelve feet deep. A

short distance east thereof it was sixteen feet deep. At the east end of the breakwater which, as late as 1879, thrusts itself east into the lake along the north line of lot 21 (Exhibit E.; Rec., 550), the water stood in 1869 over twelve feet deep, while at the north end of the pier, which projected north from it as a base line, the water stood fifteen feet deep at that time. (Rec., 538.) Between this last pier and the pier parallel to and west of it was all water. In short, all along the breakwater line of 1869, as far south as 16th street, the water stood from twelve to fifteen feet at that time. Even Moorehouse's soundings of the spring of 1869, Defendant's Exhibit 3 (Rec. 952) show the water to stand opposite 13th street and between the breakwater of 1869 and the tracing of the one of 1870 at from eleven and five-tenths to twelve and five-tenths feet deep; while at the end of the breakwater prolonging the north line of lot 21 east it stood thirteen and five-tenths feet deep. These figures, it will be remembered, do not show the actual depth, but were reduced to city *datum*. Immediately after building its breakwater of 1870 across this deep water defendant began to fill in the intervening water. At the south end thereof, on the filled-in ground, it built, in 1873, the roundhouse, which appears just opposite 14th street on Complainant's Exhibit "Q," Lydecker's map. (Rec., 930.) But as late as 1879 a large portion of this basin, as this map shows, was still under water, although it had all been considerably shallowed by defendant in the meantime. In 1885, two years after this suit was started, defendant built the so-called dock opposite 13th street, which appears in Morehouse's map as built in that year. (Rec., 328; plats, p. 3.) It projected this structure out into the

waters of Lake Michigan over 900 feet beyond the breakwater built in 1870 and with a width, save near the shore, of 300 feet. The breakwater of 1870 formed the base or west line of this dock, but with characteristic thrift the defendant threw out a wing to the north and took in some more of the lake outside the breakwater of 1870 as far north as Park Row. Its true proportions are shown on Greeley's map O (Rec., 656). The latest map of the surroundings in this territory, made prior to 1885, was made by Mr. Liljenkrantz in 1878, now, and ever since 1860, in the employ of the engineer department of the United States, having his office at headquarters in Chicago.

In May, 1878, under the direction of Col. Ch. J. Lydecker, he took soundings and made a map (Complainant's Exhibit E, Rec., 550) on which he placed such soundings. On this map he traced a twelve-foot curve as well as a fifteen-foot curve. He also showed the proposed exterior government breakwater and the United States dock line as extended, which line, it will be recalled, is substantially coincident with the east line of the 13th street dock. At that time the twelve-foot curve led inside the breakwater of 1870 opposite 12th street. The water along said breakwater stood from twelve and two-tenths to thirteen and three tenths feet in depth, save at 13th street, and there right where the 13th street pier was afterwards built out the water stood at the line of the breakwater of 1870 sixteen and three-tenths feet deep. On the contrary, directly east of this point, and where the east line of the dock of 1885 is now found, the same being the United States dock line as extended, the water stood about fifteen and three-tenths feet deep. The stage of the water of

1885 was deeper than the water of 1878, and the defendant, in seeking deeper water, built a dock 900 feet long, which brought it into water one foot shallower. But as will be hereafter shown, this water was as deep as the deepest water of the Chicago river west of LaSalle street. So much for this device for making land.

Now let us pause for a minute. This dock opposite 13th street was built in water which stood over sixteen feet deep at its shore end. To reach water of greater depth we would have to dock out over a mile. (See Lydecker's map; Rec., 551.) The base of this dock was land made by defendant since 1873 in water running from twelve to sixteen feet deep. Need we waste a minute on the inquiry whether this dock was built in water practically navigable? We have already pointed out that the limit on the commerce of Lake Superior was at the "Soo" as late as 1894 fourteen and one-half feet of water. But the extreme limit of navigation in the Chicago harbor was in 1885, and now is, not to exceed the depth of water where this dock started from the shore, or sixteen feet.

The evidence shows that the Chicago river runs west from the lake for the distance of about three-quarters of a mile. It then divides into two branches, the one called the North branch extending to the north-west about five miles, the other, called the south branch, extends to the south-west for about the same distance. About half a mile from the mouth of the Chicago river the La Salle street tunnel passes under the main stream at La Salle street. The Washington street tunnel passes under the south branch of the river at Washington street, about one-third of a mile south of the forks, caused by the two branches. It was built in 1868, and

permits a draft of about sixteen feet. The La Salle street tunnel was finished about July, 1871, and permits a draft of sixteen feet eight inches. By reason of the tunnels rising under the ground from the center to the sides, this draft is maintained for but forty feet in the center of the stream. At the docks on the side of the river the water stands about eleven feet eight inches deep. In 1889 the Washington street tunnel was rebuilt by Yerkes, a street car magnate, and its crown was lowered to seventeen feet in the middle of the stream. But as a part of the same improvement a pier for a swing bridge was built right over the crown of the tunnel and in the midst of this channel, so that the channel, in its deepest part on either side of the bridge abutment, is of less depth than that at La Salle street. The lumber district of Chicago is located four miles up the south branch, and the packing interests are located on the south fork of the south branch, about five miles from the mouth of the river. There are some thirty grain elevators situated on the river, all but three of which are west of the La Salle street tunnel. More than seven-eighths of the commerce of the Chicago harbor goes west of the La Salle street tunnel. This channel is limited by the tunnels, the bends in the river and the bridges, and vessels cannot safely load to over sixteen feet and utilize the Chicago river. To-day there are but two harbors on Lake Michigan which have sixteen feet of water, says Capt. Marshall. (Rec., 898.)

As was said by Mr. Justice JACKSON in a similar case, where he recognized the Michigan rule, which allows the riparian owners to dock and where a riparian owner sought to extend his dock twenty-five feet into the Detroit river:

"The commerce clause or provision of the constitution
 "includes control of the navigable waters of the United
 "States so far as may be necessary to insure free naviga-
 "tion; and by navigable waters of the United States is
 "meant such as are navigable in fact, and which by
 "themselves, or by their connections with other waters,
 "form a continuous channel for commerce with foreign
 "countries or among the states.

"In the case of *The Daniel Ball*, 10 Wall., 557, this
 "question of navigability, which forms the very essence
 "of navigable water, is clearly and fully discussed, and
 "they say in that case as to the test: 'A different test
 "must therefore be applied to determine the navigability
 "of our rivers, and that is found in their navigable ca-
 "pacity. Those rivers must be regarded as public navi-
 "gable rivers in law which are navigable in fact; and
 "they are navigable in fact when they are used, or are
 "susceptible of being used in their ordinary condition as
 "highways for commerce over which trade and travel
 "are or may be conducted in the customary modes of
 "trade and travel on water.'

"That constitutes its navigability and must neces-
 "sarily define the line or point to which navi-
 "gability must extend. The case of *The Daniel Ball*
 "has been repeatedly affirmed in various cases. I call at-
 "tention to *Escanaba, etc., Co. v. City of Chicago*, 107
 "U. S., 678, 2 Sup. Ct. Rep., 185. It was also af-
 "firmed in *Miller v. Mayor*, 109 U. S., 585, 3 Sup. Ct.
 "Rep., 228; and in *Booming Co. v. Speechly*, 31 Mich.,
 "336, Judge Cooley, delivering the opinion of the Su-
 "preme Court of this state, announces substantially the
 "same rule in determining that question. In *Atlee v.*
 "*Packet Co.*, 21 Wall., 389, the adjacent owner, with-

“out express authority of law from the state or from
“any municipal authority, extended his pier out into the
“Mississippi river to a point where the water was twelve
“feet deep. It was held that the packet company whose
“boat struck the pier had a right of action against him
“for damages, because the structure was an unlawful
“one, and because it extended into navigable waters.
“It is true that in that case, under the admiralty rule,
“the packet company having brought its suit in the Ad-
“miralty Court, the court divided the damages, on the
“ground that the packet company in the navigation of its
“boat was also guilty of negligence, but, if the suit had
“been at law, the packet company would have recovered
“full damages. Take a case in connection with the
“navigability of the water in front of the defendant’s
“present wharf. Could not a vessel of twenty tons
“burden and upwards navigate in front of the present
“wharf? Suppose a collision were to occur between the
“present front of the defendant’s wharf and the front of
“the proposed extension, within the twenty-five feet, or
“within ten feet of defendant’s present front, could there
“be any doubt that the District Court of the United
“States would have jurisdiction over that collision? It
“could not unless they were navigable waters. Take
“the Michigan statute upon the subject of vessels
“of five tons burden and upwards. It is manifest
“that these vessels, and such as ordinarily navi-
“gate this stream, can pass in front of de-
“fendant’s wharf as it now stands. The Landsdowne
“itself, with a capacity of 1,500 tons and carrying these
“immense freight and passenger trains, draws eight feet
“four inches, and can pass readily along in front of the
“existing dock line of these premises. In 1873 the

"canal or channel through the St. Clair flats was only
 "thirteen feet in depth; now its regular depth is sixteen
 "feet. Sixteen feet, as shown by the government chart,
 "as well as stated by the local engineer in charge, Gen.
 "Poe, constitutes the present depth of the controlling
 "channels for all this water highway navigation. It
 "therefore cannot be true, as counsel for the defendants
 "have contended, that the line of navigability in front
 "of the City of Detroit ranges from twenty to twenty-
 "five feet. If we were to make and define that as the
 "line of navigability, we would practically and
 "absolutely treat as worthless and unworthy of con-
 "sideration the fact that the government in mak-
 "ing the artificial channels only provides for or requires
 "sixteen feet. It would not do, therefore, to say, while
 "the government provides thirteen, fourteen and sixteen
 "feet as sufficient depth to accommodate the navigation
 "of the vessels that traverse these waters, that the court
 "should hold or find as a fact twenty feet is necessary or
 "twenty-three feet is necessary, in the frontage of the
 "City of Detroit."

Grand Trunk Ry. Co. v. A. Buckus, Jr.,
 46 Fed. Rep., 215.

And yet Judge Showalter and the majority of the
 Court of Appeals applied a rule that would allow the ri-
 parian owner in the Soo, in the Chicago river, in the De-
 troit flats to absolutely bar navigation in these water
 ways if the United States government did not intervene.
 Because under these rulings these streams which connect
 the commerce of the great lakes and were at the time
 of the hearing all under sixteen feet of depth are not
 "practically navigable having reference to the manner
 "in which commerce is carried on on the lakes."

The Lydecker map (Rec., 551) shows the water in 1878 to stand opposite the new or north roundhouse 13 3-10 feet deep, while just outside of that it stood 14 4-10 feet deep. At the east end of the 1869 breakwater, projecting east, just north of north line of lot 21, it stood 12 3-10 feet deep. The space between it and the breakwater of 1870 had not been filled in then. Nor had any filling been made south of this prolongation of the north line of lot 21. West of the breakwater of 1852 the waters of the lake had not been filled in south of lot 21 at all, save near the west line of the defendant's right of way. The tracks of the Illinois Central were laid on a trestle which stood in the water between lot 21 and 16th street. (Rec., 551.) A strong current from the north kept the water deep along this front. Lot 17 of block 30, Assessor's Division, of north-west $\frac{1}{4}$, section 22, township 39 north, range 14, runs around the northeast corner of Prairie avenue and 16th street. (Rec., 551.) It has a frontage on 16th street of about forty feet, and runs north to an alley in its rear about 145 feet. Its north line extends to the west line of the right of way of the Illinois Central Railroad, and its east line runs south-east along the west line of the right of way of the Illinois Central Railroad to a point opposite the center line of 16th street produced. Its south line runs from this last point along the center line of 16th street produced, to the east line of Prairie avenue, giving it a west frontage on Prairie avenue of about twenty-five feet. In 1879, a year after the Lydecker map was made, the witness Brenton R. Wells bought this property, which then, as now, was improved with a residence facing south on 16th street, and with a stable which stands at the corner of

the alley and the railroad right of way north of the residence. He made this place his home until 1890. The house stood on a slight eminence, which sloped off rapidly from about the east line of Prairie avenue produced, north, and commanded a full view over the right of way of the Illinois Central Railroad and the waters of Lake Michigan to the north and east. (Rec., 618.)

The witness Shortall has lived on the south-west corner of Prairie avenue and 16th street since the year 1886. His house commands a full view of Lake Michigan over Wells lot. Prior to that year, and since 1860, Shortall lived in the same block, about 300 feet south of his present home.

In March, 1888, while the ice was still on the lake, Wells, standing on his lot, personally took three photographs, which are in evidence as Exhibits H, I and J. (Rec., 616.) Exhibit "H" covers the tracks of the Illinois Central Railroad and the water of Lake Michigan just east of 16th street. "I" covers the right of way and the lake just opposite and a little north of his lot. Exhibit "J" covers the Illinois Central Railroad tracks and made ground north and east of his lot. The old roundhouse, with its chimney, is shown on the left of the photograph, while beyond it stretches the new 13th street dock we have just been discussing, with trains of "dead" cars stored thereon. In the immediate foreground stands the stable of Wells, intercepting a view of some of the tracks.

Shortall testifies that in 1862 this lot of Wells' dipped down at the east line of Prairie avenue produced north and thence sloped east down to the water's edge, which at the south line of the lot was then but a little over fifty feet from Prairie avenue. The defendant railroad then

had but two tracks, and these passed over on a trestle. Outside of them ran a line of breakwater covered by filling at the time Wells' photographs were taken, but which ran about fifty feet west of the west or inside breakwater shown on Exhibits H, I and J. Water flowed between them. (Rec., 641.) Wells testifies to the same effect. (Rec., 618.) Up to 1881 everything east of this breakwater and south of the roundhouse of 1869 was water, over which Shortall sailed in a yacht many and many a time, save as interrupted by the breakwater of 1852, which is the west or inside breakwater appearing in photographs H, I and J. (Rec., 643.)

The witness Towne, who lived in that vicinity for twenty years, testifies that such was the condition in 1869-71. (Rec., 670.) Nothing south or east of the breakwater of 1852-69 appeared above water prior to 1869. In fact, as late as December, 1881, the shore line south of the breakwater, prolonging the north line of lot 21, is shown by Carlson's map, Exhibit 13 (Rec., 384), to have been not far from the shore line of 1852, as shown on the Morehouse map. (Rec., 328.)

It will be recollected that the Morehouse map purports to show, not only the breakwater line of 1869 and the water line of 1852, but assumes to show as well the shore line as it stood in 1887, when the map was compiled. In 1852 the water south of the north line of lot 21 encroached beyond the west line of the right of way of the Illinois Central Railroad. In 1881 it stood west of the east track of the Illinois Central Railroad. In 1887 it stood west of the breakwater of 1852-1869.

Wells testified that *as late as 1879* the water of Lake Michigan came up to that piling, which is covered by dirt in photographs H, I and J. (Rec., 619.) There were

at that time but three tracks east of his lot, two through and one switch track. Some two years later two more tracks were put in, and by 1888 there were six tracks running along the right of way. (Rec., 629.) Between 1879 and 1888 the railroad filled in with rubbish and dirt the water which stood between the breakwater first spoken of and the one next east, which last is the inner or western breakwater shown in photographs H, I and J. (Rec., 620.)

Shortly before this suit was brought a breakwater was built by the Illinois Central Railroad Company, a fragment of which, lying opposite 16th street produced east into Lake Michigan, is shown on photograph H. It appears in Morehouse map (Rec., 328) as built in 1872. Substantially the north and south line of this breakwater is shown on photograph I, save that the breakwater which appears in the latter is a line of new piling (at the north end partially boarded up), which was begun in 1887. This breakwater of 1882 began opposite 14th street, where the breakwater of 1870 stopped, or north of the buildings shown on photograph J, and it ran south-easterly parallel with the railroad right of way, crossed the breakwater forming the prolongation of the north line of lot 21, and was carried on south until opposite 16th street, when it was returned to the shore. An opening was left in this return for dump scows to get in. Its outline is roughly shown on the Morehouse map. (Rec., 328.)

There was absolutely no excuse for the construction of this breakwater of 1870, from 12th street to 14th street, or for its southern extension by the construction of the breakwater of 1882, from 14th to 16th street. Counsel claimed that these structures, 400 feet out in the lake, were necessary to protect the railroad tracks from the

wash of the waves, but the facts render this theory untenable for a moment. The tracks were, at the times these breakwaters were built, and since 1853 had been, protected by the breakwater built by the railroad in pursuance of the city ordinance of 1852, along the east line of its right of way from the south limits of the city, at that time 22d street, north to Randolph street. It marked the east limits of the privilege granted by said ordinance, and this privilege had never been extended. This breakwater, when worn out, could easily be replaced. It was the railroad's fault if it did not see fit to keep it in repair. That portion of this same breakwater, which runs between Park Row and Randolph street, has been kept in repair, and just as effectually protects the company's tracks and property now as it did when it was built in 1853. It won't do for the defendant to let its breakwater between 16th street and Park Row get out of repair and take advantage of said lack of repair to build another breakwater several hundred feet away in the lake, fill in the intervening water, cover it with tracks, and then claim that this last breakwater is necessary to protect its tracks, which were west of said first breakwater. By this process it would only be a question of time and disposition on the part of the defendant until its breakwater would mark the eastern line of the State of Illinois in the center of Lake Michigan.

But the defendant never intended the breakwater to be anything else than a crib work to enclose the land which it proposed to make by filling in the navigable waters of the lake.

Louis T. Moore, the consulting engineer of the Illinois Central Railroad Company, says he superintended the

building of the breakwater of 1882 (Rec., 924), and that in August, 1882, Fox & Howard, who were contractors, at the instance of the defendant brought in 2,329 yards of earth and dumped it into the basin created by this breakwater of 1882. The Illinois Central Railroad paid them a low price to dump it there. What part of the area it was dumped into he does not recall. (Rec., 925.) He says there was no dumping within the area after 1882. But, while Moore was the engineer, Kennedy, another witness called by the railroad, was the carpenter and builder who, as an employe of the Illinois Central Railroad Company, built the breakwater of 1882 as well as Docks 2 and 3 north of Randolph street. (Rec., 822.) "He had charge of the pile drivers, driving of piles, timbering, planking, getting it all ready to fill, had charge of the filling." (Rec., 821.) He left the opening in the south of the 16th street breakwater of 1882, through which scows came in, similar to the opening that was left in the piers north of Randolph street. He recollects dump scows coming in through that opening at the south with material to fill it up, which dumping was paid for by the Illinois Central Railroad. (Rec., 834.) He recalls dump scows coming in when he first built the breakwater in 1882 and dumping the material inside the breakwater, and says that it was all done under his general supervision (Rec., 834); while on re-direct examination he says that he left the company's employ in February, 1887, and that about a year before that time material was dumped inside of the 1882 breakwater, between 14th and 16th streets, and that he himself saw to distributing the filling. (Rec., 838.)

We think this clearly establishes the fact that in 1882 this basin was shallowed by the Illinois Central Railroad

by dumping 2,329 yards of dirt therein, and that this was afterwards repeated in 1885 or 1886 to an indefinite amount.

Charles E. Towne, who for twenty years resided on the lake shore in sight of this territory, says that in 1883 and in 1884 he repeatedly saw barges brought inside this basin, made in 1882, with stuff to dump, and that the dumping was all over the enclosed space, and it materially shallowed the water. He says the boats would work for a while the neighbors would protest, they would then stop for a while, and when the excitement cooled off they would start in again, apparently in a furtive manner. (Rec., 691.)

Wells testifies to the same effect. Says the dump-boats were towed in, and were at work for days at a time dumping debris into the basin. (Rec., 622.)

Shortall recollects boats coming in about 1882 loaded with trash and material and dumping it in the basin at the north end. The neighbors made great objection to it. (Rec., 709.) But not content with filling it from the lake, the Illinois Central pretty continuously from 1879 to 1887 kept filling up the shore with material brought by teams, until in the latter year the water was filled up, as appears in Alexander's survey, Exhibit F. (Rec., 566.)

The encroachments of the railroad on the lake became so bold, and the territory sought to be reclaimed became so extensive, that in May, 1887, the then mayor of Chicago, John A. Roche, directed the police to stop the Illinois Central from filling in south of the south line of lot 21 which he at that time supposed marked the south limit of the territory involved in this litigation. (Rec.,

570.) He sent Horace G. Alexander, then assistant city engineer, down to stake out the south line of lot 21, a day or two prior to May 12, 1887. Alexander reported back that the filling in was going on south of that line, and he was then sent down to make an accurate survey of the work as it existed. (Rec., 569.) About 1885 a portion of the exterior government breakwater north of Park Row had broken away, opposite Peck court, and had been borne down by a severe storm onto the breakwater, built by the defendant in 1882. It swept away that portion of it which lay between the north line of lot 21 and 16th street. (Rec., 926.) When Alexander went down in 1887 he found teams dumping refuse on the shore north and south of lot 21. He says he did not know who caused the filling to be done, but the railroad was reaping the benefit of it, as the filling in of the space between the tracks and the outer breakwater would enable them to utilize the space with buildings, tracks, etc. (Rec., 552.) This action of the mayor's was precipitated by the protests of adjoining property owners, who waited on the mayor with their complaints. At this meeting, the general counsel of the road, Mr. Ayer, and other officials were present. They admitted that the defendant was superintending the dumping. (Rec., 623.) In fact, Shortall says the employes of the road were at work on this filling, in superintending its distribution. (Rec., 644.)

Remember this was four years after this suit was begun.

On May 12, 1887, Alexander made his surveys and embodied them in a map, which was introduced in evidence as Exhibit F. (Rec., 566.) The company had been engaged in driving piles south of the point where the

breakwater of 1882 was washed away, and had also started to drive piles in the middle of the basin along the south line of lot 21, when stopped by the police. (Rec. 565.) The plat speaks for itself. It conforms substantially with the photographs H, I and J, taken by Wells a year later. As this map shows, the inside or western line of old piling shown on photograph H (the breakwater of 1852) ran about 330 feet north of the south line of 16th street to the south line of lot 21. There it is lost in the filled in ground. The west side of this line of piling was 175 feet east of the west line of the defendants' right of way; 25 feet east of it ran a second line of piling, marked on the Morehouse map, "built in 1876" (Rec., 328), which, commencing about ninety feet north of 16th street, ran south through the water of Lake Michigan parallel with the first piling. This new line of piling appears at the right of photograph H. (Rec., 616.) To a greater extent than appears in photographs H and I, the water stood west of this inside piling of 1852 in May, 1887. Between May, 1887, and March, 1888, the basin north of the south line of lot 21, which, on Alexander's map, was marked by a few piles driven in the center, had been filled up. In fact, during the few days which elapsed between the taking of photographs I and J, in March, 1888, the piling along the south line of lot 21, which appears very distinct in I, was pretty well covered with dirt, as appears in J. All the land which appears in J, both south and east of the machine shops, as well as east of the main tracks, had been made since 1879. (Rec., 623.) That portion of the basin north of the south line of lot 21, thus filled in between May, 1887, when Alexander made his plat, and March, 1888, when photograph

J was taken, was in May, 1877, covered with water north of the south line of lot 21. It was 188 feet long north and south, by 383 feet wide east and west. On May 12, 1887, the new line of piling had been boxed up ninety-eight feet south of the south line of lot 21, while open pile work extended eighty feet south thereof. This line of pile works appears more completely boxed up in the photographs of 1888. The witness Lord, who made soundings the same day Alexander made his map, testifies that this change had been made since May, 1887. (Rec., 649.) The line of submerged piling which, in the low water of March, 1888, appears traced through the ice in the water opposite 16th street in photograph H, appears but at one point in the map of May 12 1887. Notwithstanding the tremendous shallowing that all this dumping and filling in had occasioned south and east of the machine shops, the water yet unfilled remained within the breakwater of 1882 of fair draft as late as 1888. In the year 1886, just east of where the shed is marked on Alexander's map, *i. e.*, just south of the south line of lot 21, a lake propellor was built and launched. (Rec., 620.) It was called the Vernon, was about 100 feet long, 20 feet wide and stood in the stocks at least 25 feet high. Its stocks stood partially in and a little over the inside line of breakwater marked on Exhibit F. (Rec., 621.) There was quite a good sized yacht built and launched a little north of this point about a year or two before the Vernon was built, and also a good sized propeller. (Rec., 636.) A man by the name of Smith kept a shipyard there. (Rec., 711.)

On May 12, 1887, the witness Lord made soundings all over this basin. (Rec., 646-653.) He launched a

row boat in water west of the innermost piling opposite 16th street (the breakwater of 1852), rowed through this piling and into the channel which intervened between that and the piling next east (the breakwater of 1876), which appears on the right of the photograph H. (Rec., 616.) There he took his first soundings, and found the water six feet deep. He rowed around this second line of piling, and about twenty-five feet east of the north end thereof he found the water to be eight feet deep. He then rowed to the outside breakwater (see photograph I) and at its south end the water stood ten feet deep. (Rec., 650.) North of this point, but south of the south line of lot 21, and about fifty feet west of this line of piling, he took another sounding. The water was ten feet deep at this point. About ten feet from the shore, at the north-west corner of Alexander's map (Rec., 566), he found the water to be five feet deep. At the same distance from the north-east corner of the basin it was seven feet, and half way between these two points it was six feet deep. After defendant was stopped by the police from filling in south of the south line of lot 21, defendant drove but few piles south of that line until the spring of 1889. September 24, 1888, Judge Harlan entered a decree in this case, allowing the company to complete the slip or basin already commenced (the decree says), immediately north of 16th street extended, with a wharf on each side of it not exceeding 100 feet in width each. There was no proof to authorize this decree. But on the 12th day of July, 1889, before the road had done anything towards building this slip and dock, the witness Tisdell got a boat and took soundings in the opening which had been left in the south return of the breakwater of 1882. This

may be traced in photograph H. Tisdell made ten soundings in that opening, and found the water to average thirteen to fourteen feet at that point. (See plat, Rec., 600.) This was undoubtedly the average of the water everywhere east of the breakwater of 1852, and west of the breakwater of 1882, before the filling-in process began. This opening had never been filled in, as defendant needed it to pass the dump scows into the basin in order to fill that. As the latter had not been completely filled in, this opening had been left unobstructed.

In pursuance of Judge Harlan's decree, about July, 1889, the defendant pretended to build a slip inside this basin. But this was a mere pretense to make more land. In order to utilize the land it had created north and east of the machine shops, and pass its cars around the roundhouse built in 1873, to connect with the tracks which Carlson's map (Exhibit 13, Rec., 384) shows had been carried south to said roundhouse, it was of vital importance that the defendant should get more land east of the breakwater of 1869 and south of the north line of lot 21. Otherwise it could not connect such switch tracks by easy curves with the through tracks south of 16th street. Protected by Judge Harlan's decree and under the pretext that it was building a slip, defendant completed the piling begun in 1888 and shown on photographs H, I and J, and continued it as far south as the center line of 16th street. It filled in solid all the submerged lands north of the south line of lot 21, between the breakwater of 1852 on the west and that of 1882 and 1887 on the east, filled in the water south of the south line of lot 21 and north of the south line of 16th street from the breakwater of 1882 east to a line 102 feet east thereof, or a space 652 feet by 102

feet; 182 feet east of this tract of land, and between the south line of lot 21 produced and 16th street produced it built another structure, 628 feet long north and south, by 105 feet wide, opposite 16th street, and 166 feet wide along the south line of lot 21. (Greeley's map O, Rec., 658.) These structures are euphemistically spoken of as docks, and the intervening water as a slip. As soon as it had completed these docks (?) it proceeded to floor the west or inside dock with tracks and to connect up the main tracks south of 16th street with those north of 13th street, via the seaside of the roundhouse of 1873. The tracks crossing 16th street were increased in number from six, before this structure was built, to fourteen thereafter. (Rec., 640.) But before laying out its new system of switch tracks thereon defendant *sought to fill up* the intervening slip (Rec., 713); but caught red-handed, and while the ink on Judge Harlan's decree forbidding it was not yet dry, it relinquished its purpose for the time being. On the outside dock it proceeded to locate some signs of Seidenberg's cigars, to anchor some cars without trucks, and sundry trucks without cars; to lay away railroad machinery in various stages of decay and ill-repair. It put this made land to the various purposes of a junk yard, awaiting the time when, in its mad rush for deeper water, to satisfy imperative demands of practical navigation, as it now contends, it could purloin some more of the state's property, and in the confusion of boundaries attendant thereon fill up the intervening slip and thus increase its uptown railroad yard at the expense of the state. (Rec., 639.)

These tracts of land south of the north line of lot 21 thus seized and withheld from the state, and the use to which they were put, are shown by the photographs

taken by the witness Shortall in 1894, and introduced in evidence as Exhibits K, L and M. (Rec., 638.) Their dimensions are all shown on Greeley's map, Exhibit O. (Rec., 658.) This slip thus made in 1890 has never sheltered a vessel (Rec., 625), and the witnesses all agree that from its location, its proximity to the shore and the way it lies (plats, p. 19), it could not afford protection to any craft seeking its shelter in rough weather. (Rec., 706, 769.) In fact, if you will go down there to-day, you will find that the defendant has started to build a wall right across its mouth. Judging from the past, if this court does not intervene, it will hereafter fill it up and use it for a car yard.

Before considering the defendant's evidence let us call the attention of the court to a few facts in connection with the Chicago harbor. On the west coast of Lake Michigan a current prevails which runs from north to south and which piles up sand on the north side of any structure thrust into the lake. The accretions made north of the north pier prior to 1869 are well shown in the Wheeler map. (Rec., 538.) Prior to the opening of the drainage canal the Chicago river naturally flowed out into Lake Michigan. Whenever there was a rain mud and sewage were carried to the end of dock 1, and there met the current from the north, which sweeps around the north pier and were thereby carried into the outer harbor south of the river and there deposited. Sand was in the same way brought by the lake current down to the middle opening in the exterior breakwater and filled in the outer harbor. (Rec., 569.) This sewage and mud filled up the slips adjacent to the river, and dredging had to be done right along. (Rec., 752.) But since this law suit started Captain Marshall says there has not

been a dollar spent in dredging the outer harbor, although plenty of money has been appropriated. As a result there has been a gradual deposit all over the harbor. (Rec., 555.) The reason Marshall gives why he has declined to expend the money is because the harbor is not utilized (Rec., 556), and he says the reason why it has not been utilized is simply on account of this litigation. (Rec., 558.) He says: "There has not been any formal suspension of work by an order of the secretary of war, but the officer in charge of the district has failed to carry on any improvements in that harbor beyond the preservation of the piers since 1888 within my knowledge, * * * simply because the matter has been in litigation." (Rec., 893.) He subsequently says that the reason was because the title to the submerged lands and docks was in litigation, and they suspended work until that matter was decided and it could be seen that property could be used. (Rec., 901.)

The natural consequence has been that the whole harbor has been shallowed solely as the result of the unfounded claims of the defendant which occasioned this lawsuit. It is apparent that the water is necessarily more shallow right up alongside of the docks on account of their catching the drifting sand and by reason of stuff falling into the water from above. The defendant railroad through its counsel in the lower court had the audacity to claim that because in the immediate neighborhood of these docks the water from the causes just stated is now more shallow than it was in former years it therefore had a right to build these structures in the deep water that existed there in 1873, 1880, 1881, 1882, 1885 and 1889.

But that is not all. About 1885, some two years after this suit was started, very rich deposits of iron ore were discovered in the Messaba range and elsewhere in Michigan. The low price of ore and the improvement in metal ship building started the construction of metal boats on the lake. This industry has practically dated from 1888-1890. (Rec., 809.) Such plants as the Wheeler Yard at Bay City and the Chicago Ship Building Company at South Chicago are now turning out iron and steel boats of a size that was not dreamed of when this suit was first filed. There are boats now being launched with a tonnage of from 2,500 to 3,500 tons and a draught of twenty feet (Rec., 806), although prior to 1894 fifteen feet was the limit of draught of the commerce that came from the east through the St. Clair flats; fourteen and one-half feet was the limit of all vessels passing into Lake Superior (Rec., 551), while sixteen feet was then and is now the limit of the Chicago river. (Rec., 891.) The construction of these large boats has been coincident with the development of the steel and iron industry. (Babcock, Rec., 809; Van Dolson, Rec., 701.) But as yet the metal boats number but 190 on the whole chain of lakes, out of a total of 3,341 vessels. (Rec., 809.) The existence of these boats, not one of which can go up the Chicago river loaded, gives counsel an opportunity to claim that inasmuch as the largest one of these boats would hit the bottom before she got up to the defendant's structures, the latter did not project beyond the point of practical navigability. But if you will look at Lydecker's map of 1879 (Exhibit 2, Rec., 930), showing the latest soundings prior to the bringing of this suit, you will observe that such a boat

would strike the bottom before she ever got up to the government breakwater which protects the outer Chicago harbor, while in 1892, according to defendant's Exhibit 10 (Rec., 592), she could not get within half a mile of such breakwater.

We have in the record (Exhibits N and O, Rec., 658) two maps of soundings and surveys made by Mr. Greeley, who assisted Col. Reynolds in making his map of 1865 (Rec., 689), and who is recognized as the dean of surveyors and engineers about Chicago. His soundings along the lakeside of the made ground between 12th street and 16th street extended (excluding the 13th street dock) were reduced to city *datum* in the map, and are as follows:

At the Edge.	Twenty-five Feet Distance.	Fifty Feet.	One Hundred Feet.
6.8	10.3	10.3	12.2
7.8	9.8	9.3	11.3
9.8	10.8	11.8	12.3
10.8	13.8	12.3	12.8
11.3	13.3	12.8	13.3
10.8	13.2	13.5	14.3
11.8	14.3	13.8	14.3
12.8	13.8	13.8	14.8
11.3	13.3	14.3	14.8
10.3	14.8	14.8	14.8
10.3	14.8	13.8	14.8
10.3	14.8	14.8	15.3
9.8	14.8	14.8	15.3
11.8	14.8	14.8	15.3
11.3	14.3	14.3	14.8
12.3	13.3	13.8	14.8
11.8	12.8	13.3	14.3
8.3	12.8	13.3	14.3
11.8	12.3	12.8	14.8
9.3	12.8	12.3	14.8
12.3	12.3	13.3	14.8
9.8	12.3	13.8	14.8
11.3	13.8	14.8	15.3
13.8	14.3	14.8	14.8
<hr/>			
Average	10.7	13.2	13.45
Av. actual depth 12		14.5	14.75
		14.75	14.75

But it must be borne in mind that these figures are reduced to city *datum*, while at that time the water actually stood one and three-tenths feet above city *datum* (Rec., 656), so that the water on August 1, 1894, alongside the made land stood twelve feet deep, twenty-five feet east thereof it stood fourteen and one-half feet, fifty feet east thereof it was fourteen and three-fourths feet, and 100 feet east thereof it was fifteen and one-half feet deep: substantially as deep as the Chicago river the same distance from its banks at the LaSalle street tunnel. (See

testimony of Captain Dunham, Rec., 589.) It will be borne in mind that a vessel only needs the deep water under her keel.

Greeley's soundings around the 13th street docks are as follows:

South side of the Pier, beginning at the Shore.

At the Edge.	Twenty-five Feet Distance.	Fifty Feet.	One Hundred Feet.
8.8
9.0	10.8	11.8	12.3
10.8	11.8	12.4	12.8
10.8	11.8	12.3	13.3
11.3	11.8	12.8	13.3
10.3	11.8	12.8	13.3
10.8	11.8	12.8	13.8
11.3	11.8	12.8	13.8
11.3	14.3	14.3	13.8
14.8	14.8	14.3	14.8
Average 10.9	12.3	12.9	13.4
Actual Average 12.2	13.6	14.2	14.7

East end of the Pier.

At the Edge.	Twenty-five Feet Distance.	Fifty Feet.	One Hundred Feet.
14.3	14.8	16.3	14.8
5.8	10.8	15.8	15.8
13.3	14.8	14.8	15.3
14.8	15.3	15.5	15.3
Average 12.05	13.7	15.6	15.3
Actual Average 13.8	15.1	16.9	16.6

But these soundings were also reduced to city *datum* and the actual depth of water was one and three-tenths feet deeper, so that from an examination of the average of the actual depth on August 1, 1894, we find that on the south side of the pier it will average at the edge twelve and two-one-hundredths feet, twenty-five feet distant thirteen and six-one-hundredths, fifty feet fourteen and two-one-hundredths, 100 feet fourteen and seven-one-hundredths. At the east end of the dock at the edge it averaged thirteen and eight-one-hundredths, twenty-five feet distant fifteen and one-one-hundredth, fifty feet distant sixteen and nine-one-hundredths, and 100 feet distant sixteen and six-one hundredths. All told the water around the dock is quite as deep as the Chicago river at La Salle street tunnel. The north side of the dock is practically like the south side thereof.

Greeley on his map ("N" Rec., 658) has shown three rows of soundings around the piers north of Randolph street.

A casual inspection of these soundings show that these docks are at all points surrounded by water as deep as that in the Chicago river.

Defendant put on the stand some young men in its employ named Grafton and Tarbet. They were sent out during the time of low water, and prior to the navigation period of 1895, to take the soundings south of 12th street. Their figures appear on "Defendant's Exhibit 7." (Rec., 652 6.) They are reduced to Chicago city *datum*. Although, as the witness Tarbet testifies, the spring of '95 was very dry, still the water on April 31 was one-third of a foot above city *datum* (Rec. 886), and that must be added to his figures. But we think that this court, upon investigation, must be satisfied to take the figures of Mr. Greeley.

But as previously stated, we have nothing to do with the water of to-day, as every foot of it has been shallowed by the defendant since this suit was started.

The defendant put on the stand the two Prindivilles and one Van Dolson, former tug-boat owners; Harmon, a tug-boat owner who did the defendant's towing when the 13th street dock was built, together with W. L. Brown, the president of the Chicago Ship Building Company, and Mr. Babcock, its superintendent, and propounded a series of set questions to each of them, which boiled down amounted to this: "To what depth of water would you wharf out if you were building a wharf to-day?"

Their answers suggested from sixteen to twenty feet of water. But when their evidence is critically read it is at once seen that they all have in mind the future rather than the present commerce of Chicago. None of them define the point at which navigation ceases to be practical, and they all refer to water such as the largest ship ever built on the lakes may hereafter require.

This evidence, we submit, is immaterial and irrelevant to this inquiry.

First—It throws no light upon the question submitted for examination, to-wit: What is the point beyond which practical navigation cannot exist?

Second—It refers to the demands of the commerce of the future, whereas the limits of defendant's right is to be fixed by the court as of the date when the state invoked the aid of its court. As we previously suggested, it would be monstrous on account of the errors of the lower court to withhold from complainant its property for fourteen years, and then refuse

to it the property it was at that time entitled to on account of the increased depth of the water required for the navigation of boats of a size made possible only since 1885. Defendant's witnesses show that metal boats are now and since 1885 have been built of a size which prior thereto was never thought of, and of a size too large for any of the connecting channels of the great lakes and for the harbors that are found thereon, and in particular the Chicago harbor.

As stated, the channel of the "Soo" connecting Lake Superior and the lower lake region was limited to fourteen and a half feet at the time this evidence was taken. (Rec., 797.) The water varies from thirteen to fifteen feet deep. The channel at St. Clair flats connecting Lake Huron with Lake Erie has been deepened to twenty feet. But prior to 1894 it was less than sixteen feet. (Rec., 551.) The capacity of the Chicago river is measured by the depth of water over the LaSalle street tunnel, which cannot be counted on for over sixteen feet of water right in the middle forty feet. And yet because of the fact that the Canadian government was building new locks at the "Soo" to afford seventeen feet of water, and our war department was deepening the channel at St. Clair, and some boats were then being built with deeper draught than any channels then in process of construction, defendant's witnesses testified and counsel contended that the greatest possible draught of such boats should mark the line of practical navigation on March 1, 1883, when we asked for relief. To so hold would place the courts in an illogical and inconsistent position. If a man has a right to dock out by virtue of his ownership of the *ripa* alone, and has a right to construct his dock on the submerged lands of the state

without its consent and against its will so long as he does not project it beyond the point of practical navigation, then the courts will protect his rights. But in doing so it will enquire whether he has exceeded this point and in so doing will fix that point. A decree will be entered that he can build his dock to that point but not beyond. When that decree is entered his rights as the owner of the bank is fixed; he cannot enlarge or extend his decree. As between him and the state it is *res adjudicata*. Everything beyond that point is free from such easement. We will suppose that decree to be entered in 1883, and that at that time the leviathan drew but twelve feet of water. Up to that line the owner might build his dock. But suppose by reason of the increase in the size of boats, consequent on new inventions, in 1910 his dock would not accommodate the largest vessels which might seek it. Thirty feet of water might be desired by such boats. Is he entitled to renew his claim of riparian ownership and put another thousand feet onto the end of his dock so as to occupy land in thirty feet of water without the state's consent, or must he be bound by the decree and bring the more recent aquatic monsters to his dock by dredging out to deeper water? Obviously there can be but one intelligent and wise answer, and that is when he has once adapted his property to practical navigation, his easement is exhausted. He can no further encroach on the domain of the state. Judge Harlan's decree illustrates this most happily. He said, in 1887, to the defendant, you may complete your slip at 16th street, as described in the decree, but you must not extend that dock or the 1885 dock or the 1881, 1880 or 1889 docks any further, and I enjoin you from so doing. But in 1887, as we have seen, the Susquehanna of 2,500 tons

burthen was the largest vessel on the lakes, while in 1894 the Northwestern of 4,244 tons burthen, was launched, and boats of greater tonnage are now on the stocks. Why forbid it adapting its wharves so as to accommodate the Northwestern. If twenty feet is the point of practical navigability to-day, why, in 1887, say to defendant you can't go beyond certain lines, where the water stood not over sixteen feet. It is because the decree fixes the riparian owner's right as such owner of the bank for all time. If it does so, the decree should relate to the date when it was asked for, to wit, the date of the beginning of the suit. This whole theory of the occupation of the state's submerged lands without its consent by the owner of the shore is moonshine and no longer exists outside of this case. Its birth was due to Judge Field taking things for granted and not going to the bottom of things as Judge Grey did in the Shively case. But assuming the right exists in this case *we* are entitled to ask that its exercise be limited to the strict letter of the mandate. As Judge Woods suggested, this court has not said that its exercise might be renewed from time to time, as this defendant has done.

DEFENDANT'S WITNESSES.

Babcock is one of the strongest witnesses defendant produces to sustain its contention. (Rec., 805.) He is the manager and naval engineer of the Chicago Ship Building Company at South Chicago. He says there are at present eight metal boat yards on the great lakes, with all of which he was familiar, and that they are all building boats of about the same size as his yard, and that at his yard, including the vessels now under construction,

they had built fifteen vessels since the yard started in 1890. Their first boat was launched in 1891 and had 392 feet of keel. With the exception of two boats built at Buffalo she was the largest boat built on the lakes up to that time. Her tonnage was 2,400 tons, and she was capable of being loaded to a depth of eighteen feet. The next boat was 330 feet keel with a tonnage of 2,957 tons, and capable of being loaded to eighteen feet of water. But at the date of the hearing they had on the stocks two steamers, each with a keel measurement of 350 feet, a tonnage of 3,600 tons and capable of being loaded to twenty feet. But when one discovers, as Babcock testifies, that out of the 3,341 vessels making up the lake fleet of 1894 but 190 were constructed of metal (Rec., 809), and that these metal boats range from less than ten feet to eighteen feet of draught, it is apparent that witness' answer of twenty feet to the question put to him by defendant's counsel, "Having
" reference to the size and character of the vessels now
" in use upon the great lakes, what, in your opinion, is
" the reasonable and necessary depth of water in a slip
" or dock for the accommodation of those vessels?" is based upon the requirements of exceptional boats not now even in existence. Moreover, such evidence throws no light on the situation when the perprestures complained of were all erected. The witness admits that but one of the vessels his company have built can go through the Welland Canal on account of their size (Rec., 811); that at the time he testified no boats can go through the "Soo" into Lake Superior drawing over thirteen to fifteen feet of water, and that prior to 1882 none could pass through the "Soo" drawing over nine or ten feet of water, and that the Calumet river in front of his ship

yards is intended to provide only for a sixteen-foot channel. (Rec., 814.) Witness' first familiarity with the lakes began at Buffalo in the year 1887 and with Lake Michigan in 1890. (Rec., 808.) His testimony as an expert with reference to the necessities of commerce on Lake Michigan prior to 1890, before which date all these perprestures were erected, is therefore of but little value.

W. L. Brown, the president of Babcock's company, testifies that he would build a dock out to twenty feet of water. His testimony is, for the same reason as Babcock's, in no way material. His principal business is pig iron and iron ore, manufacturing iron ore and the mining and sale of both products. (Rec., 796.) He was never connected with ship building prior to the organization of said company. He admits that prior to 1885 no metal boats of any consequence were built. He doesn't know what the depth of water is in the Calumet river opposite his works, a mile up said river, or at its mouth. (Rec., 797.) Does not know the depth of water in the Chicago river or at its mouth. Does not know the depth of water around any of the Illinois Central docks or anywhere in Lake Michigan (Rec., 800); never navigated a boat and don't know the draught of water required by any boats in 1885. (Rec. 800.) He did, however, sell to the Illinois Steel Company, whose works and pier is near the mouth of the Calumet river, a large amount of ore, obtained from the Lake Superior region, and he did know, and stated, that 14½ feet was, at that time, the limit of draught for all vessels trading in Lake Superior through the "Soo." (Rec., 797.) His testimony as to navigable water is certainly not an expert's, and is entitled to no consideration.

Capt. Marshall, called for defense, says: "To accommodate the general commerce of the lake as the channels and harbors are *now projected* or completed, I should say that it should be dredged to twenty feet in depth, the outer harbor. * * * At present no vessel with a deeper draught than about sixteen feet can carry on commerce in the Chicago river, so that I should think a foot deeper than that, seventeen feet, would be the proper depth to accommodate the largest, as well as the smallest, vessels that come to Chicago now." (Rec., 891.) The captain admits that Milwaukee and South Chicago are the only harbors on Lake Michigan having over sixteen feet of water in the channel (Rec., 894.) On cross examination he states they have been endeavoring to secure a sixteen-foot channel at South Chicago since 1888, but it averages about fifteen feet. (Rec., 959.) As it is, it requires frequent dredging. (Rec., 960.) The captain, however, does not know the average draught of vessels entering the Chicago harbor to-day, in 1872, or in 1869. (Rec., 897.) The captain's testimony is based on the future needs of commerce rather than the present.

Harmon, the tug-boat owner, Van Dolson and John Redmond Prindiville make up the balance of defendant's experts. John Prindiville is a vessel and insurance agent who retired from nautical life in 1871. He thinks he would dock out to eighteen feet of water. (Rec., 727.)

Redmond Prindiville is a loan agent for the Northwestern Mutual Life Insurance Company who retired from the lakes in 1849. (Rec., 907.) He thinks a dock ought to go out to fifteen or sixteen feet of water. (Rec., 910.)

VanDolson left the lakes in 1872, but has been engaged in collecting for tug companies and as referee, etc., ever since. He thinks a dock should be built to sixteen feet of water, and he would dock out to eighteen feet. (Rec., 756.)

Harmon is a practical tugboat man who was for many years in the employ of defendant. He is actively engaged in navigating the lakes, and he says a dock should be built to sixteen feet of water, and he would dock out to twenty feet. (Rec., 762.) According to the testimony of these witnesses there was no need to build the 13th street dock at all, as the water at the shore end when it was built was sixteen feet deep.

But the questions asked all these witnesses related to *the present*; and their answers, without exception, were based upon what depth they conceived would be needed *in the future* by the largest vessels rather than those now actually engaged in trade. They were all affected by the presence at the time in the Chicago river of two boats—the Curry and Centurion—the largest that had ever been there, and they had in mind accommodating those vessels. For instance, Harmon's attention was drawn to these vessels. (Rec., 761.) He says the Curry appeared here in the fall of 1894 for the first time; the Centurion laid up at Chicago in the winter of '94-95. They were both built in 1893. The Curry was engaged almost exclusively in the iron ore business, running to Illinois Steel Company's mills at South Chicago; the Centurion doing a general package business between Duluth and Buffalo. (Rec., 774.) The Centurion was loaded with 160,000 bushels of corn and could not go up the river. She was waiting the opening of the season of 1895 to depart. Where she lay east of LaSalle street she drew

sixteen feet three inches. The Curry had been loading at the Illinois Central docks, had on board 247,000 bushels of oats, was drawing sixteen feet aft and fourteen feet forward, and they intended to load her to sixteen feet forward. (Rec., 761.) To accommodate these vessels Harmon called for twenty feet of water. But these leviathans drew too much to get up the Chicago river. They were too long to get by its bends and at the same time keep in its deepest channel. They were so wide that they could not get through the bridge draws on the South Branch. (Rec., 774.) They could not go above the LaSalle street tunnel with over sixteen and six-tenths feet of draught. The Curry could not carry its ore from Lake Superior to the Illinois Steel Company docks at South Chicago except by passing through the "Soo." The Centurion must go through the same channel to make her trips from Buffalo to Duluth. At the "Soo" they were in 1894 confronted with a depth of water of not to exceed fourteen and one-half feet; and notwithstanding these facts the lower court held twenty feet marked the line of practical navigability.

John Prindiville says he had in mind vessels of 4,500 tons when he answered. (Rec., 751.) Indeed, he thinks the Curry and Centurion measure nearer 5,000 tons, but that they are building longer boats at South Chicago (Rec., 751), (although Babcock says the largest boats building at South Chicago will only measure 3,600 tons). Prindiville admits these boats could not be loaded in the Chicago river to over fifteen feet. (Rec., 752.) Prindiville left the lakes in 1871, and shows his lack of familiarity with its commerce when he talks about big boats. (Rec., 738.) He wants eighteen feet of water for a dock, despite the fact that no wharf about Chicago,

without dredging, would give that depth of water, and that he would have to go a quarter of a mile outside the government breakwater to get it. (Rec., 745.) He admits the average tonnage in 1869 was not over 500 to 600 tons; that ten feet was the deepest draught of vessels (Rec., 749), and that these boats used to sail west of the south channel. (Rec., 755; see Graham's map, plats, p. 9.) He admits that all commerce going east has to pass through the Detroit flats, which in 1867 gave but ten to eleven feet of water, a few years thereafter but fourteen feet, and reached sixteen feet but five or six years ago. (Rec., 750.) But while admitting he did not know the average tonnage of to-day (Rec., 748), he claims the Centurion and Curry were then at the mouth of the river, and they needed eighteen feet.

Redmond Prindiville says that his estimate of sixteen feet is based on the demands of commerce as it now exists. If his testimony is based upon his knowledge of the size of the average vessel it is based upon an entire misconception of its size. He testifies that the average tonnage of all vessels doing business in Chicago is 2,000 tons per vessel, but he afterwards reduces this to 1,500 tons. (Rec., 908.) Such vessels, he says, would draw fourteen feet of water. (Rec., 920.) But, Babcock shows the average on the lakes to be but 369 tons, while the records of the custom house show the number and tonnage of all vessels, foreign and domestic, entering the Chicago harbor in 1894. In that year there entered this harbor 7,379 vessels, with a tonnage of 4,358,358 tons, or an average of a little less than 592 tons to the vessel. (Rec., 941.) If John Prindiville based his judgment of eighteen feet of water on what he considers the demands of an aver-

age size boat, he is equally astray in his facts. He says the average tonnage is 2,000 tons; thinks a 1,200-ton boat is a small vessel (Rec., 737), and he would not call an 1,800-ton boat a large vessel. (Rec., 738.) But, as we have just shown, boats of that size are at least three times as large as the average. The view taken by these witnesses is radically wrong, even with reference to commerce on the lake as now conducted in vessels.

On account of the act of 1869, and this fourteen-year-old lawsuit, and the consequent clouding of the title to the submerged lands south of the river, no docks, other than those constructed by the defendant, have been built on the lake front. Even in this basin, however, the largest passenger steamer on the great lakes, the Christopher Columbus, is wont to ply. It is 382 feet long, forty-two feet wide, and on one occasion it carried over 3,000 persons besides the witness Morehouse (Rec., 861), and yet it only drew twelve feet of water. (Rec., 873.) During the World's Fair it was accustomed to wharf at a point not more than half way out of the World's Fair pier, which during the summer of 1892-3 was erected opposite Van Buren street. This was a temporary pier that projected out about 800 feet beyond the Illinois Central breakwater of 1869. Afterwards this boat tied up on the south side of pier No. 3. (Rec., 860.)

It is to accommodate the average of this commerce of the Chicago harbor that the riparian owner to-day fashions his dock. If it lies near the Chicago river, that is the water he makes his channel connect with.

(4) *Defendant did not build these structures for dock purposes but merely to make land.*

The hollowness of defendant's claim that it built these

structures to connect its land with navigable water is apparent. In 1869, and ever since, it had a frontage of several thousand feet on that part of the Chicago river where the deepest water was always maintained. The water was deeper in the Chicago river, opposite slips A, B and C, than it was out where these docks were built. In order to get as deep water as that in the river at that point, defendant would have to go out beyond the government breakwater. If defendant wanted to adapt more of its property to deep water, and secure greater dock frontage, all that it would have had to do would be to extend slips A and B to the south through its existing property and dredge out east a channel east of Dock C to the main river. All of the defendant's witnesses testify that that would be the quickest, easiest and least expensive way to get to the deep water in the Chicago river, which, on account of dredging, was the deepest water around. Instead of doing so, defendant made land from 1869 to 1881 north of Randolph street, by filling in water substantially as deep at the western end as at the eastern end. By making it, it did not get to any deeper water. What did it do with it when it got it? Did it use it for dock purposes? Did it run a line of boats or connect its railroad business with the commerce of the great lakes? Not at all. It leases practically the whole of it out to private parties as soon as made. When the case was first tried, dock No. 1 was leased out to Cook & Rathborn, box manufacturers; dock No. 2, to Joseph Rathborn & Co., lumber dealers; dock No. 3 was used for a warehouse. Next west thereof, the south part of dock C was leased to the Michigan Salt Association; the middle part thereof to Mueller & Raber, cedar post dealers, and the north end to Lord & Bushnell Co., lumber

dealers. (See Carlson's map No. 13, Rec., 384.) Now the same premises are occupied in substantially the same manner, *e. g.*: No. 1 is occupied by the Norwood & Butterfield Lumber Co. on the north, and Joy, Morton & Co., salt dealers, on the south; No. 2 is occupied by Peabody Coal Co.; No. 3 by two coal firms, all tenants of the defendant. (Rec., 927.) The 13th street docks and pier are, and always have been, used for storing railroad cars. (Rec., 859.) None of it was ever intended to be used for dock purposes. It is merely so much land taken from the bed of Lake Michigan for the purpose of a railroad yard. A boat engaged in commerce has never been seen to be tied up to its side (Rec., 627, 641), while from the day it was built it has been in constant use as a storage yard for dead trains of cars. (Wells, Rec., 627; Shortall, Rec., 640.)

Exhibit J, taken in 1888, shows this dock as it was at that time with the lines of cars standing on it (Rec., 627), while Shortall's photographs, Exhibits K and L, show the same use in 1894 (Rec., 639). There can be no pretense or excuse for this structure. In 1879 the water at the breakwater line of 1870, where the dock begins, was sixteen feet three inches, while at the east end it was fifteen feet three inches deep.

Its present depth, as we have stated, appears on Greeley's "Exhibit O." (Rec., 658.)

The dock at 16th street was the baldest and bold-est attempt at purloining the state's property. As we have shown, when the basin was first enclosed it was intended to build and fill it all in, just as Dock C was built north of Randolph street. An opening to the south was left for this purpose. In the meantime the 13th street dock was completed, a large amount of land was filled

up east of the round house of 1873, tracks were laid over it all, and the railroad started in openly to complete the filling of the territory south of the round house, which it had been stealthily filling in since 1882, so as to connect the tracks and yards made north and east of the round house with the main line south thereof. As stated, in 1887 the mayor of Chicago stopped it. The defendant was bound to get ground to build its switch tracks on and thereby enlarge its newly-created car yard. Under a pretext, then for the first time advanced, that it wanted a cove where vessels could lie, it induced Judge Harlan to permit the basin to be filled in and the docks to be built on either side of a slip. No sooner was the slip built than, as stated, it started to fill it up. Its sole object was to make land. So much of the west docks as is not occupied by the new railroad tracks is used for the storage of trash, freight cars and material. The dock east of the slip is used for storing damaged cars, rails, railroad machinery and advertising boards, all as appears on Shortall's Exhibits "K," "L" and "M." (Rec., 640.)

As a matter of fact, no one familiar with Lake Michigan would think of building a slip such as the one in question. It affords no greater protection from a west wind that the original piling of '52. From a south storm it affords no protection at all. It is impossible to get into it with any wind from the north or east. The slip is within 150 feet of the shore and is very narrow; a vessel with north or east wind would be almost certain to miss the mouth and fetch up on a lee shore. Captain Harmon admits it would not be possible to get in there with any sea on.

A vessel engaged in commerce has never been seen within this slip since the day it was made. (Rec., 626.)

It is simply a part of defendant's railroad yard made on land belonging to the state. While defendant was making this new yard in the lake at 16th street, its use of the property it already possessed largely ceased by reason of its losing the Baltimore and Ohio Railroad, its tenant, which shared its terminal facilities and a large part of its yard room. (Rec., 861.) The main depot of the road was also moved south to Park Row; the south round house and a part of the north one was removed to Burnside, south of the city, and new car yards have also been located at Burnside. (Rec., 861.) The made lands are all adapted for dock purposes—although never used for that purpose—and should be turned over by decree of this court to the state that they may be put to such practical use by the state as to it may seem best.

But this is not the worst of it. While the state was taking evidence under this mandate the City of Chicago, by ordinance dated October 21, 1895, fixed up a trade with the defendant railroad whereby it purported to create a park of all the submerged lands between Randolph street and Park Row. (Rec., 1019.) On July 24, 1895, the secretary of war approved of the construction of said park (Rec. 1055), and on November 30, 1895, issued a permit permitting a modification to be made. Attached to these permits are plats. (Rec., 1057.) On one of these plats it appears the railroad is going to fill up for railroad purposes some more submerged land between Park Row and 12th street despite the decision of the Honorable Supreme Court of the United States to the contrary. Although the right to this submerged land is a part of the regalia of the state, its creatures, the railroad and the city, and the United States officials are proceeding to traffic with and trade off

the state domain without as much as saying by your leave. Having acquired a quit-claim as it were from these parties who have no color of title thereto, the railroad gravely turns around and says, "Because of all this, don't you see we do not project beyond the line of practical navigability?" But our patience is exhausted in referring to the numerous turnings and twistings of the defendant. The patience of the court must long since have been tried by the mere recital thereof. Suffice it to say if it had purloined less land the history thereof would have been shorter. In conclusion we ask that the property thus taken from the state, to-wit, all east of the breakwater line of 1869, be decreed to belong to the State of Illinois, to be by it rented out or used in such manner as its legislature may hereafter direct.

Respectfully submitted.

EDWARD C. AKIN,
Attorney General.

JOHN H. HAMLINE,
Solicitor Counsel for the State of Illinois.

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No. 198, 28.

By. of Ayer, Jewett & Dickinson
for Ills. Cent. C.

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OCTOBER TERM, A. D. 1900.

No. 198.

THE PEOPLE OF THE STATE OF ILLINOIS,
vs. Appellants,
ILLINOIS CENTRAL RAILROAD COMPANY AND CITY
OF CHICAGO, Appellees.
Appeal from the United States Circuit Court of
Appeals for the Seventh Circuit.

BRIEF ON BEHALF OF ILLINOIS CENTRAL RAILROAD COMPANY.

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J. M. DICKINSON,
Of Counsel.



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STATEMENT.

This litigation was commenced by the attorney general of the State in 1883. The object of the suit was to obtain a judicial determination of the rights of the parties in respect of certain lands on the east or lake front of the City of Chicago, situated between the mouth of the Chicago river and the foot of Sixteenth street, which had been reclaimed from the lake and were occupied by the works of the Railroad Company; and also in respect of a tract of submerged land adjacent to its works, which had been granted to the Railroad Company by an act of the State Legislature passed in 1869.

The case has been before this court once before (at the October term, 1892), on an appeal from the original decree of the Circuit Court, and is reported, as then presented, in 146 U. S. Reports, page 387. The decree was modified to some extent, and the cause remanded for the further investigation of certain particular questions of fact specified. *Except as modified in the particulars mentioned, the decree of the Circuit Court was affirmed.*

The modification made, and the object and scope of the investigation ordered, clearly appear in the following extracts from the mandate of this court to the Circuit Court, dated April 10, 1893, which appears on pages 519 to 527 of the printed record:

"Whereas lately in the Circuit Court of the United States for the Northern District of Illinois * * in a cause between the People of the State of Illinois, complainants, and the Illinois Central Railroad Company, the United States of America and the City of Chicago, defendants, * * wherein the decree of the said Circuit Court is in the following words, viz.: * * *

"And the court doth further find and declare, and it is hereby adjudged and decreed:

"That the Illinois Central Railroad Company is the owner in fee of all the wharves, piers and other structures erected by it in the City of Chicago, east of Michigan avenue, south of Chicago river, and north of the north line of Randolph street, extended eastwardly as shown upon said Morehouse map*, including the station grounds lying west of the slip C, the pier marked C, lying east of slip C, and represented upon the Morehouse map to have been built in 1867, and piers 1, 2 and 3, lying east of pier C last mentioned, and represented upon said map to have been built as follows: Pier 1 in 1872 and 1873, pier 2 in 1881, and pier 3 in 1880, and is also entitled to the use, for the purposes of its business, of the slips marked on said Morehouse map.

"That said company is likewise the owner in fee of all the wharves, piers and other works made and constructed by it in the City of Chicago, east of its main tracks, between the north line of block 23, in fractional section 15 addition to Chicago, and the center line of Sixteenth street extended, including the pier or line of piling represented upon the said Morehouse map to have been built in 1870, and the station

*Map numbered 3 in the Book of Exhibits forming part of the printed record. It is referred to in the opinion of Mr. Justice HARLAN, filed in said cause February 23, 1888, and is made part of the decree by reference.

grounds lying west of the said pier and contiguous thereto; also of the wharf or pier projecting into the lake from the grounds last mentioned, and represented upon the said Morehouse map to have been built in 1885, which said wharves, piers and other works so constructed and so far as constructed by the said Illinois Central Railroad Company, as aforesaid, are lawful structures and not encroachments upon the domain of the State of Illinois or upon the public right of navigation, or upon the property interests or estate of the said City of Chicago.

"And the court doth further find and declare, and it is hereby adjudged and decreed, that the third section of the act of the general assembly of the State of Illinois, passed over the governor's veto April 16, 1869, entitled, 'An Act in relation to a portion of the submerged lands and Lake park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the City of Chicago,' so far, at least, as it confirms 'the right of the Illinois Central Railroad Company under the grant from the State in its charter, * * * and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands, submerged or otherwise, lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue in fractional sections ten and fifteen,' is a valid and constitutional exercise of legislative power and legalizes as well what was done by said company prior to April 16, 1869, in the way of filling in the lake and constructing wharves, piers, tracks, warehouses and other works between the Chicago river and the north line of Randolph street extended eastwardly, as its occupancy and use for way ground of the two said triangular pieces of ground immediately south of Randolph street; and that the subsequent act of the general assembly of Illinois, passed April 15, 1873, in so far as it sought by repealing the said act of April 15 (16), 1869, to revoke or annul said confirmatory clause of the last-named act, was void under the constitution both of Illinois and of the United States; but

the court is of opinion, and so adjudges and decrees, that the said act of April 15, 1873, repealing said act of April 16, 1869, had the effect in law to withdraw from said railroad company the grant to it, its successors and assigns, by the third section of said act of April 15 (16), 1869, of 'all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile, and between the south line of the pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of said City of Chicago;' and to reinvest the State with such right and title as it had in and to said premises prior to the passage of said act of April 16, 1869; and said repealing act had the further effect to withdraw from said company the additional power conferred upon it by said act of April 16, 1869, to improve the harbor of Chicago, and to engage in the business of constructing and maintaining wharves, piers and docks for the benefit of commerce and navigation generally, and, not in the prosecution of its business, as defined and limited by its original charter and the laws of the State, saving, however, to said company as unaffected by said repeal the right to hold and use as part of its way ground or right of way, and not otherwise, the before mentioned part of the submerged lands east of its breakwater between Monroe and Washington streets extended eastwardly, which was reclaimed from the lake in 1873, presumably upon the faith of the act of 1869, and is marked on the Morehouse map with the words 'built 1873.'

"It is further ordered, adjudged and decreed that the defendant, the Illinois Central Railroad Company, be, and it is hereby perpetually enjoined and restrained from erecting structures or in filling with earth or other materials any portion of the bed of Lake Michigan as it now exists and as shown on said Morehouse map east or in front of said fractional sections ten and fifteen—that is, east or in front of

the grounds now occupied and used by it between Chicago river and the north line of Randolph street extended eastwardly, or east or in front of the grounds now occupied and used by it between the north line of Randolph and the center line of Sixteenth street, each extended eastwardly, except that said company may complete the slip or basin already commenced immediately north of Sixteenth street extended, with a wharf on each side of it not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load and unload, and upon which tracks of the company may be laid.

"As by the inspection of the transcript of the record of the said Circuit Court, which was brought into the Supreme Court of the United States by virtue of separate appeals taken by The Illinois Central Railroad Company, The City of Chicago, and The People of the State of Illinois, agreeably to the act of Congress in such case made and provided, fully and at large appears.

"And whereas, in the present term of October, in the year of our Lord one thousand eight hundred and ninety-two, the said cause came on to be heard before the said Supreme Court on the said transcript of record on separate appeals and was argued by counsel.

"On consideration whereof it is now here ordered, adjudged and decreed by this court, that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan, which the third section of the act of April 16, 1869, purported to grant to the Illinois Central Railroad Company, and that the act of April 15, 1873, repealing the same, is valid and effective for the purpose of restoring to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16, 1869.

"But the decree below, as it respects the pier, commenced in 1872, and the piers completed in 1880 and 1881, marked 1, 2 and 3, near Chicago river, and the pier and docks between and in front of Twelfth and Sixteenth streets, is modified so as to direct the court below to order such inves-

tigation to be made as may enable it to determine whether those piers erected by the company by virtue of its riparian proprietorship of lots formerly constituting part of section ten, extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake; and, if it be determined upon such investigation that said piers, or any of them, do not extend beyond such point, then that the title and possession of the railroad company to such piers shall be affirmed by the court; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers to the excess ascertained to be abated and removed, or that other proceedings relating thereto be taken on the application of the State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend beyond the point of navigability and to affirm the title and possession of the company if they do not extend beyond such point, and if they do extend beyond such point to order the abatement and removal of the excess, or that other proceedings relating thereto be taken on application of the State as may be authorized by law.

"Except as modified in the particulars mentioned, the decree in each of the three cases on appeal must be affirmed with costs against the railroad company.

"You, therefore, are hereby commanded that such execution and further proceedings be had in said cause in conformity with the opinion and decree of this court as according to right and justice and the laws of the United States ought to be had, the said appeals notwithstanding."

The mandate having been filed in the Circuit Court and the cause re-docketed for further proceedings "in conformity with the opinion and decree of the Supreme Court," the case was referred to a master in chancery to take testimony and

report the same. (Rec., 529-531.) The evidence reported by the master fills 476 pages of the present printed record (pages 532-1007), and some additional documentary evidence, covering 43 pages (Rec., 1015-1058,) was introduced by consent at the hearing.

The cause was heard before the late Circuit Judge Showalter, upon the evidence above referred to and the proofs taken prior to the first decree and preserved in the original record; and the decision of the court was that the piers and docks referred to in the judgment and mandate of the Supreme Court, in respect of which the further proceedings had been ordered, did not extend, nor did either of them extend, into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels was conducted on the lake. It was therefore ordered, adjudged and decreed that the title and possession of the Illinois Central Railroad Company to the said piers and docks, and each of them and every part thereof, be affirmed. (Rec., 1010-1013.)

An appeal from that decree was taken, in the name of the complainants, to the United States Circuit Court of Appeals for the Seventh Circuit; where the cause afterwards came on to be heard before the Honorable William A. Woods, Circuit Judge, James G. Jenkins, Circuit Judge, and Peter S. Grosscup, then District Judge. The decree entered in the Circuit Court was affirmed; and the case now comes before this court on appeal from that judgment.

From this it appears that the questions involved are questions of fact only. The evidence is voluminous, but cannot be said to be either conflicting or inconclusive. Two courts have passed upon it and decided the issues in the same way; and the question here is whether the concurrent decisions of those two courts shall be permitted to stand.

The complainants' counsel brings the case here and relies mainly, in his brief and argument, upon the point, also pertinaciously insisted on in the courts below, that this court made

a mistake in its former decision that the works in question were lawful structures, and not encroachments upon the domain of the State, if they do not, and so far as they do not, extend "beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

It was the opinion of all the judges in the courts below that this was a field of discussion into which they were not permitted to enter, but that their duty was limited to the consideration of the particular questions of fact which had been sent back to be further investigated and determined by the Circuit Court. Any other conclusion would open the whole record, and permit a reconsideration of every question apparently concluded by the former judgment of this court.

I.

A PRELIMINARY QUESTION.

It is not disputed that the right of the Railroad Company to construct and retain possession of the works in question was directly involved in this very case when it was before the court on the former appeal. Nor is it denied that it was then decided that the works were lawful structures and not encroachments upon the domain of the State or the public right of navigation, if they do not, and so far as they do not, extend "beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

But the appellants are now represented by other counsel, and the argument they have filed starts out with the modest assumption that the former judgment of the court was a mistake and no respect need be paid to it. In support of this theory it is said that "the question of how far the title of a riparian owner extends is one of local law," and that "the common law is by statute the law governing riparian rights in

Illinois." At this stage of the case, as we respectfully insist, that question has ceased to be practical, and any discussion of it would be wholly irrelevant. But attention may properly be called to the fact, that at the first hearing of this case in the Circuit Court the testimony of several witnesses was introduced by the eminent counsel then representing the City, in proof of the existence of a long prevailing custom or usage, which had been uniform and universal, not only in Illinois, but in all the States bordering upon the great lakes, permitting the riparian proprietor to erect and maintain wharves and piers in the lake in front of his land on the shore, wherever they could be made useful for commercial purposes. (Testimony of J. Y. Scammon, Fernando Jones and Stephen A. Douglas, Printed Rec., 391-394, 401-404, 406.) This evidence was not introduced by the Railroad Company, but in behalf of the City of Chicago, and—the fact being undisputed—no attempt was made by either party to refute or contradict it. What effect evidence of this character should have in determining the law on the subject, is not here a material question, and we do not discuss it. That such a right, however, may spring from usage, in the absence of prohibitory legislation, is apparently conceded in both the recent cases of *Shively v. Bowlby* (152 U. S., 1, 14), and *Revell v. The People* (177 Ill., 468, 484).

north of the south line of Lot 2,
 1 It is furthermore to be observed that every foot of the land, occupied by the wharves and piers in question was included in the grant of the submerged land, part of the bed of Lake Michigan, made by the State to the Railroad Company in the third section of the legislative act of April 16, 1869. (Rec., 526.) It was held by a majority of the judges sitting in the case at the former hearing—four judges to three—to be competent for the legislature to revoke so extensive a grant of the submerged land, and that it had in effect been revoked by the repealing act of April 15, 1873. But it is shown that some of the wharves and piers had been completed before the repealing act was passed.

We may also be permitted perhaps to suggest that the common law adopted by statute in Illinois is "the common law of England, so far as the same is applicable and of a general nature" (Ill. Rev. Stat., Chap. 28); and in *Fuller v. Shedd* (161 Ills., 462, 489), it is said, "The large fresh water lakes bordering this State present conditions *wholly unprovided for by the common law of England.*" We find also in *Hardin v. Jordan* (140 U. S., 371, 395) authority for the similar statement, that "all the cases in which waters above the ebb and flow of the tide, such as great inland lakes and the larger rivers of the country, are held to be public in any other sense than as being subject to a servitude to the public for purposes of navigation, are confessedly a *departure from the common law.*" As all the authorities are in agreement on this point, is it not a mistake to suppose that in Illinois the rights of shore owners on Lake Michigan are governed by the English common law? In determining the rights of riparian proprietors on even the smaller interior lakes of the State, the rules of the common law have been rejected in the State court, although those rules have not been repealed by legislation and there has been no statutory regulation on the subject. As pointed out in *Hardin v. Jordan*, *supra*, it has been decided by the highest judicial authority in the British Empire that the crown has no *de jure* right to the soil of an inland lake, and that there is no rule of law which would disconnect that soil from the private ownership of riparian proprietors. That decision was approved and followed by this court in the case last cited—an Illinois case,—in which it was held that under a grant of lands bounded on a lake or pond which is not tide water and is not navigable, the grantee takes to the center of the lake or pond, ratably with other proprietors if there be such. In the subsequent case of *Fuller v. Shedd*, in the State court, the authority of both this court and of the English courts was rejected, and the rule laid down that the grantee in such case takes only to the edge of the water.

Further observations on this subject are not called for; but it may not be amiss to remark that whatever deference may hereafter be paid in the Federal Courts to the decision in *Fuller v. Shedd*, the judgment of this court in *Hardin v. Jordan* is none the less binding on the parties to that suit, because a similar question in another case has since been decided differently by the State Court.

It is equally clear that whatever was presented and decided on the former appeal in this case has become *res adjudicata*, and the same matter between the same parties cannot be reopened and subsequently considered. The judgment of this court became the settled law of the case, and it was the duty of the Circuit Court to carry it into execution according to the mandate. That court could not (to use the language of the opinion in *ex parte Sibbald v. The United States*, 12 Peters, 488, 491), "vary it, or examine it for any other purpose than execution; or give any other or further relief; or review it upon any matter decided on appeal for error apparent; or intermeddle with it, further than to settle so much as had been remanded." Nor will this court upon a second appeal review that judgment. As was said in *Roberts v. Cooper* (20 How., 467, 481), "there would be no end to a suit if every obstinate litigant could, by repeated appeals, compel a court to listen to criticisms on their opinions, or speculate on chances from changes in its members." Were such a practice generally tolerated, the effect would be to undermine the basis of judicial authority and bring the decisions of courts into derision. Attempts have been frequently made to transgress or evade the rule, but on no point have the decisions of this court been more inflexible or emphatic. *Himely v. Rose*, 5 Cranch., 313; *Skillern's Executors v. May's Executors*, 6 Cranch., 267; *Martin v. Hunter's Lessee*, 1 Wheat., 304, 355; *Browder v. McArthur*, 7 Wheat., 58; *The Santa Maria*, 10 Wheat., 431; *Sibbald v. The United States*, 12 Pet., 488; *West v. Brashear*, 14 Pet., 51; *Washington Bridge Co. v. Stewart*, 3 How., 413;

Chaires v. The United States, 3 How., 611; *Corning v. The Troy Iron and Nail Factory*, 15 How., 451, 466; *Sizer v. Many*, 16 How., 98; *Peck v. Sanderson*, 18 How., 42; *Roberts v. Cooper*, 20 How., 467; *Whyte v. Gibbes*, 20 How., 541; *Ex parte Dubuque & Pacific Railroad*, 1 Wall., 69; *Noonan v. Bradley*, 12 Wall., 121, 129; *Tyler v. Magwire*, 17 Wall., 253; *Supervisors v. Kennicott*, 94 U. S., 498; *The Lady Pike*, 96 U. S., 461; *Stewart v. Salamon*, 97 U. S., 361; *Clark v. Keith*, 106 U. S., 464; *Chaffin v. Taylor*, 116 U. S., 567; *In re Washington & Georgetown Railroad Co.*, 140 U. S., 91; *Northern Pacific Railroad Co. v. Ellis*, 144 U. S., 458, 464; *Gaines v. Rugg*, 148 U. S., 228, 241; *In re Sanford Fork and Tool Co.*, 160 U. S., 247; *Great Western Telegraph Co. v. Burnham*, 162 U. S., 339, 343-4; *In re Potts, Petitioner*, 166 U. S., 263; *Thompson v. Maxwell Land Grant Co.*, 168 U. S., 451.

To the extent, therefore, to which the former judgment goes, the rights of the parties have been finally settled. They cannot be treated as open to discussion or controversy in any subsequent stage of the litigation. Both parties are concluded by the former judgment. This is a fundamental principle, and necessarily precludes any assumption, and every contention that the facts or the law bearing on any question decided are not what they have been adjudged to be by the court.

No attention will be paid, therefore, in this brief to the assaults which have been made on the former judgment of the court in the voluminous argument filed by counsel for the appellants. We had no reason to feel particularly pleased with that judgment; but it has never been supposed by counsel for the Railroad Company that their client could accept such parts of the judgment as were satisfactory to it, and be permitted afterwards to dispute the rest. It is and has been their understanding that as to the issues decided the judgment is an absolute bar to any further dispute between the parties. The only question left for consideration on this appeal is the question

remanded to the Circuit Court for further investigation. That is purely a question of fact, turning, like all other questions of fact, upon a just and reasonable view to be taken of the evidence pertinent to that issue contained in the record.

II.

THE MANNER IN WHICH COMMERCE IN VESSELS IS CONDUCTED ON THE LAKE.

An inquiry into the facts pertaining to this subject forms a material and very essential part of the investigation directed by the mandate. The object of the inquiry was, obviously, to ascertain what depth of water is required at a wharf or dock in the harbor of Chicago to furnish reasonable accommodations for loading and unloading vessels engaged in lake navigation. There should be no confusion on this point. The directions of this court on the former appeal could hardly be more explicit; but had they been less unequivocal, common sense would teach us that such conveniences as wharves and docks, if supplied at all, should be adapted to the size and draught of the vessels employed. To serve a useful purpose, a wharf must reach water of sufficient depth to float vessels when laden. They must of necessity—to use the expression of Mr. Justice Miller in *Atlee v. Packet Company*, 21 Wall., 393—"occupy a part of the stream (or lake) over which a vessel could float if they were not there." "Small boats," it has been pithily said in a Michigan case,* "can land where large ones do, but large boats cannot go where small ones can. It would be absurd to apply rules to the enjoyment of rights of navigation, as if canoes and scows instead of ships and steamers did the business of the country." The right sustained in the former judgment was a substantial right—a right of practical value; and everything said in the opinion of the court repels the acceptance of the extravagant notion that the remanding order is susceptible

* *Ryan v. Brown*, 18 Mich., 209.

of a construction which would permit the wharves and piers constructed by the Railroad Company, or essential parts of them, to be demolished, if they extend no farther into the lake than is necessary to furnish suitable accommodations to the class of vessels now employed in carrying on the principal part of the lake traffic.

Upon the point here referred to considerable testimony has been taken. Eight witnesses were interrogated on the subject before the master—James S. Dunham (Rec., 573-598), John Prindiville (Rec., 721-756), William Harmon (Rec., 757-784), Edward Van Dolson (Rec., 784-793), William M. Brown (Rec., 794-803), W. I. Babcock (Rec., 804-816), William L. Marshall (Rec., 888-904) and Redmond Prindiville (Rec., 906-922)—and there is substantial agreement in their testimony. There is no dispute as to the essential facts.

The testimony of two witnesses (John and Redmond Prindiville) goes back as far as 1836. At that time, it is said, the average capacity of vessels on the lake was about 100 tons. Some of them, noted for being very large, would carry 200 tons. In 1840 to 1845 scarcely a vessel afloat carried more than 10,000 bushels of wheat (about 300 tons). In 1847 a vessel came out that carried 18,000 bushels of corn—the largest vessel on the lake at that time. Since then the tonnage of vessels has been steadily increasing.

In 1858, 1859 and 1860, it appears that grain vessels were in use whose capacity was from 15,000 to 20,000 bushels. Their draft was from ten to twelve and one-half feet. One carrying 25,000 bushels was a very large vessel.

In 1869 a vessel of 13 feet draft was not of unusual size. Some were in use drawing 14 feet; but these, with a full load, would sometimes ground on the St. Clair flats. In 1870 vessels carrying 50,000 bushels of wheat were considered large vessels. The tonnage of such a vessel is about 1,500 tons; and 14 feet is a light draft for a vessel of that size with that cargo.

For several years past vessels carrying 100,000 bushels of corn have not been considered of extraordinary size. The major part of those now employed in that trade will carry from 112,000 to 130,000 bushels. Some of the larger propellers will carry 160,000 bushels of corn. These vessels draw from 16 to 18 feet of water.

The lumber business of the lake is carried on in large measure by sailing vessels, drawing on an average $10\frac{1}{2}$ to 11 feet of water. But we are told by Major William L. Marshall (for several years since 1888 in charge of the harbor improvements at Chicago) that the *main commerce of the lakes is carried on by large metal steamers*. The tonnage of these vessels varies from 1,000 or 1,200 tons up to 3,000 tons. It appears from the testimony of other witnesses that some are built to carry from 4,000 to 5,000 tons.

The tendency of late years has been, as Major Marshall testifies, to a very material increase in size. The average tonnage of vessels coming into Chicago has doubled in ten years.

The draft of the large-sized propellers that come to Chicago, as Major Marshall points out, is limited by the tunnels under the river. They cannot go over the tunnels drawing more than 16 feet (some of the witnesses say 16 feet 8 inches), but a great many of them are built so they can be loaded down to 18 or 19 feet. There are no commercial facilities, this witness states, for loading or unloading such vessels at Chicago unless it can be done at the mouth of the river. There is a depth of 18 to 20 feet (obtained by dredging) at the mouth of the river against the ends of some of the Illinois Central piers and some of the Peshtigo docks; beyond that there are no facilities for carrying on commerce by these large vessels in Chicago harbor. Chicago, according to this witness, is a third class port in respect of depth of water; but in point of commercial business, second in the United States.

The tunnels referred to by Major Marshall are those built by the City under the river at Washington street and La Salle

street. The Washington street tunnel was completed in 1866 or 1867. The intention was to depress it low enough to admit of a channel over it of 14 feet depth at low water, or 15 or 15½ feet at a full stage of water in the lake.

The La Salle street tunnel was commenced, it appears, in 1869, and was completed in 1871. The depth of water over the Washington street tunnel had been found insufficient; vessels frequently grounded in passing over it. It was therefore decided to sink the La Salle street tunnel one or two feet lower. At a full stage of water there is a narrow channel over it, in the middle of the river, of about 16 feet 8 inches. Both tunnels slope down towards the center and rise towards the shore. This tunnel is about three-fourths of a mile above the mouth of the river.

Some years after the Washington street tunnel was built it was reconstructed and lowered so as to give a channel over it of the same depth as that over the La Salle street tunnel. Vessels loaded to the depth of sixteen feet eight inches can now pass over the center of both tunnels at a full stage of water, which is one foot and eight-tenths above Chicago datum.

The works prosecuted by the government to improve and deepen the channels and passages over the St. Clair flats, and between Lake Superior and Lake Michigan, furnish very striking evidence of the necessity which has been felt for many years, and the constant tendency which has been manifest, to employ vessels of greater draft and tonnage in lake navigation. All the commerce to and from Lake Superior passes through the "Soo Canal," and when this testimony was taken the draft to which vessels could be loaded was limited to the depth of the lock in use since 1881, which is fourteen and seven-tenths feet above the mitre-sills. The government had then just completed there a twenty-foot channel, and a Canadian lock had also been built, giving a depth of seventeen feet. (Rec., 551, 811.) The canal at St. Clair flats was dredged

at first to a depth of nine feet, which was increased to twelve and then to sixteen feet, and the government, when the testimony was taken, was just completing a twenty-one foot channel. Vessels drawing eighteen feet had then no difficulty in sailing from Buffalo to Chicago. (Rec., 552, 557.)

In 1892 an appropriation of \$375,000 was made by Congress for a ship channel 20 and 21 feet in depth, with a minimum width of 300 feet in the shallows of the connecting waters of the Great Lakes between Chicago, Duluth and Buffalo; and the Secretary of War was authorized to enter into contracts to carry out the plans proposed for a ship channel, to be paid for as appropriations might from time to time be made, not to exceed in the aggregate \$2,965,000, exclusive of the amount then appropriated. (27 U. S. Stat., 108.)

Appropriations have been made for the new lock and other improvements in Sault Ste. Marie river, since 1881, as follows:

1882, (22 U. S. Stat., 207)	\$ 200,000
1884, (23 <i>Idem</i> , 143)	125,000
1886, (24 <i>Idem</i> , 324)	250,000
1886, (" " ")	150,000
1888, (25 " 418)	500,000
" (" " ")	1,000,000
1890, (26 " 447)	900,000
" (" " ")	400,000
1891, (" " 977)	600,000
" (" " 977)	300,000
1892, (27 " 377)	115,000
1893, (27 " 602)	500,000
" (" " ")	1,230,000
1894, (28 " 404)	150,000
" (" " ")	300,000
1895, (" " 947)	483,865
Total	\$7,203,865

Prior to 1864 all vessels of ordinary size entering or leaving the Chicago river were obliged to follow a circuitous channel

from a point nearly opposite the foot of Van Buren street to the mouth of the river, to avoid a sand bar in the lake which prevented more direct access to the river. It was on this sand bar that the government breakwater was afterwards built which now forms the exterior line of the outer harbor. The passage was difficult and sometimes dangerous. In 1864, or about that time, the government excavated a direct channel fourteen feet or more in depth across the sand bar, which was afterwards deepened by dredging to seventeen or eighteen feet. The south pier at the mouth of the river was extended by the government across the old channel. (Rec., 729-30, 766, 789, 913.)

The depth of the water in the outer harbor varies from seven or eight feet, inside, to seventeen feet at the eastern entrance. The average depth is not over fourteen and one-half feet. The government had done no dredging there since 1888. Major Marshall states that vessels do not need it as a harbor of refuge; and it cannot be used for commercial purposes by any of the lake-going vessels, except by using the Illinois Central docks and wharves. No work had been done by the government in the outer harbor since Major Marshall had been in charge of the district. As no effort had been made by anybody except the Illinois Central Company to take advantage of the harbor, he had advised the Secretary of War to spend no money on it. If the harbor should ever be used for commercial purposes, as we are advised by Major Marshall, it would have to be dredged to the depth of twenty feet to accommodate the general commerce of the lake as the harbors and channels are now projected or completed. (Rec., 891.)

To the question, "Having reference to the manner in which commerce in vessels is now conducted on the lakes at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the accommodation of that commerce?" Major Marshall makes this answer: "At present no vessel with a deeper draft

than about sixteen feet can carry on commerce in the Chicago river, so that I should think that a foot deeper than that, seventeen feet, would be a proper depth to accommodate the largest as well as the smallest vessels that come to Chicago now." (Rec., 891.)

This question was put to the same witness: "If you were to construct a pier or wharf in the said outer harbor for the accommodation of vessels engaged in lake commerce, or were to advise in relation thereto, what would be the depth of water you would consider it necessary to reach in order that such pier or dock should be available for the uses intended?" Major Marshall's answer is: "Seventeen feet at present, and ultimately they should construct their docks with twenty feet of water. Piling and bulkheads so as to stand dredging to twenty feet."

The witness was further asked to state what depth of water there should be between the bottom of vessels entering the harbor and the bed of the navigable water to guard against dangers to vessels by chance obstructions. His answer was, that it was his own opinion and that of other engineers, that larger vessels, similar to those that enter the Chicago river, should have at least two feet. For small vessels in still channels there should be at least one. To make eighteen feet available for the purpose of navigation, the water, he says, should be two feet deeper, or twenty feet, to guard against ordinary and temporary fluctuations and chance obstructions.

To the question put on cross-examination: "Supposing I should tell you that the average draft of the vessels coming into Chicago harbor in 1869 was about six feet, and the average draft of vessels coming into Chicago harbor in 1895 was about nine feet, what effect would that have upon your judgment as to how deep to make a harbor?" The answer was: "Wouldn't have any at all, because I would have to make any harbor—any channel—to accommodate the general commerce of the lakes, which would include the cats as well as the kittens." It would have to be made deep enough,

he repeats, to accommodate the biggest boats that trade at that port or would be likely to trade there.

Two of the witnesses—William L. Brown and W. I. Babcock—had been for five years connected with the Chicago Shipbuilding Company, one as president and the other as naval architect and general manager. The company had a large shipbuilding establishment at South Chicago, where it employed from 400 to 1,200 men.

The vessels constructed there had been so far entirely of steel, and all were steamers in use or intended for use in the commerce of the lakes.

The first two vessels were duplicates, 292 feet keel, 40 feet beam, $24\frac{1}{2}$ feet deep. Their tonnage is about 2,400, and they are capable of being loaded to 18 feet draft.

The next vessel was 330 feet keel, 45 feet beam, $24\frac{1}{2}$ feet deep, tonnage 2,957, and capable of being loaded to 18 feet draft.

The next was 230 feet keel, 37 feet beam, 19 feet deep, tonnage 1,264, and capable of being loaded to 15 feet draft.

The next two were duplicates, 287 feet keel, 41 feet beam, 24 feet $7\frac{1}{2}$ inches deep, tonnage 2,330, and capable of being loaded to 18 feet draft.

The next was 275 feet keel, 42 feet beam, $24\frac{1}{2}$ feet deep, tonnage 2,945, draft 15 feet.

The next was 328 feet keel, 44 feet beam, $27\frac{1}{2}$ feet deep, tonnage 3,093, and capable of loading to 20 feet.

There were in the yard unfinished:

Two vessels, 302 feet keel, 40 feet beam, 24 feet deep, tonnage 2,237, and capable of loading to 18 feet draft.

One vessel, 362 feet keel, 44 feet beam, 26 feet deep, tonnage 2,600, and capable of loading to 20 feet draft.

Two steamers then on the stocks, 380 feet keel, 48 feet beam, 28 feet deep, tonnage about 3,600, and 20 feet draft.

It is stated by these witnesses that there were eight metal-building ship yards on the lakes—one at West Superior, Wis-

consin; one at West Bay City, Michigan; one at Detroit, Michigan; one at Toledo, Ohio; two at Cleveland, Ohio; one at Buffalo, New York, and one at Chicago. Most of the vessels constructed in the other yards were of about the same size as those they were building at Chicago.

Mr. Babcock states that there were 165 metal (steel and iron) vessels on the lakes in 1894, with a draft varying from 10 to 18 feet. Some of the passenger boats, perhaps, draw less than 10 feet; but all the old boats of 2,500 tons and over that leave Chicago draw from 16 to 17 feet. The size of the boats has been increasing very rapidly and very constantly.

Both these witnesses testify that, in their opinion, having reference to the size and character of the vessels now in use on the lakes, the reasonable and necessary depth of water in a slip or dock for the accommodation of shipping is not less than twenty feet; and that, if they as riparian proprietors on Lake Michigan were to construct a pier or wharf for the accommodation of lake commerce, they would consider it necessary that it should reach water at least twenty feet deep.

The other expert witnesses—Captain John Prindiville, Captain Harmon, Captain Van Dolson and Mr. Redmond Prindiville—concur substantially in the opinion expressed by Major Marshall. The wharf should reach water not less than eighteen feet deep to make it available for the purposes intended.

The court will find on reading the testimony of those witnesses that these are the opinions of practical and experienced men, familiar with navigation and the details of lake commerce, and competent to speak instructively on that subject.

The question will naturally be asked, to what extent have these opinions been controverted? The answer is, that not the slightest attempt has been made to controvert them. *Not a single witness was called for the State to gainsay this testimony.*

III.

PIERS 1, 2 AND 3 NEAR CHICAGO RIVER.

One of the questions to be determined is, whether the piers 1, 2 and 3, between the north line of Randolph street extended and the river, "extend beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake."

It appears from the evidence that work was commenced on pier 1 (next to the river) in 1871. The prosecution of the work was suspended in consequence of an injunction obtained by the United States in the Circuit Court, in a suit in which the substantial ground of complaint was that an appropriation had been made by Congress (in 1870) and plans had been prepared by the Engineer Bureau for the construction of an outer harbor, and that the works contemplated by the Railroad Company would interfere with those plans and obstruct navigation. The suit never came to a final hearing. On the 3d of August, 1871, a board of engineer officers was appointed by the Secretary of War "to take into consideration the plans for docks in the basin now (then) being formed (at Chicago) by the construction of the United States breakwater in that harbor; which docks are proposed to be built by the Illinois Central Railroad Company or others; to report their views thereon, and to establish the limiting harbor lines for such construction in that basin, reference being had to the interests of commerce and navigation therein." The board was advised that "the object sought to be attained by the construction of the breakwater and the legitimate use of the basin should be fully discussed by the board, and the grounds for its conclusions fully stated."

The report of the board was transmitted to the Secretary of War September 29, 1871, in which it was recommended that a line be established in the outer harbor "commencing at a point

on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present designed, as the harbor line, beyond which no wharves or other structures shall extend." The plan for wharves south of Randolph street, submitted by the Illinois Central Railroad Company, was disapproved; but north of Randolph street there was no dispute, it was said, as to the ownership of the Railroad Company, nor any opposition to building wharves.

An official letter from the Chief of Engineers, addressed to the Secretary of War, accompanies the report, from which the following extract is taken: "The report of the board is herewith transmitted, and the approval of the harbor line proposed by it is respectfully recommended, *together with so much of the plan submitted by the president of the Illinois Central Railroad Company as relates to wharves north of the north line of Randolph street prolonged.*" Indorsed upon this letter, under date of October 4, 1871, is the official approval of the Secretary of War.

Afterwards, on the 16th of January, 1872, the injunction before mentioned was dissolved and the suit dismissed, as per stipulation filed binding the Railroad Company to conform to and observe the limiting harbor line which had been established as above stated.

Evidence substantiating all the foregoing facts will be found on pages 462-472 of the printed record, and there is no dispute in regard to them.

The original plan for the three piers was approved in 1871. Pier 1 was constructed in conformity to that plan; but it appears that in 1880 the plan was modified in respect to piers 2 and 3, with the approval of the Secretary of War. The original lines, as well as those finally adopted, are shown on

the tracing accompanying the official communication from Major G. J. Lydecker of the Corps of Engineers to Mr. Jeffery, the general superintendent of the Railroad Company, of November 22, 1880, advising him of the action of the War Department. Those piers were built in accordance with the modified plan. (Rec., 333-335, 356-7, and map on page 5 in Book of Exhibits.) Neither of the three piers extends beyond the harbor line established in 1871.

As the War Department had assumed control of the outer harbor before either of the three piers was constructed, by virtue of the act of Congress of July 11, 1870, appropriating \$100,000 for "enlargement of harbor facilities at Chicago, Illinois, according to the plans of the Engineer Department," it was supposed that the action of the Secretary of War was to be accepted as conclusive evidence that the authorized works would not obstruct navigation, and was in itself sufficient to justify their erection. This was the view adopted by Mr. Justice Harlan and Judge Blodgett at the original hearing of the case in the Circuit Court; and the following authorities may be cited as seeming to furnish pretty strong support for the opinion: *South Carolina v. Georgia*, 93 U. S., 4; *Wisconsin v. Duluth*, 96 U. S., 379; *Boom Company v. Patterson*, 98 U. S., 403, 409; *The Clinton Bridge*, 10 Wall., 454; *Pennsylvania v. Wheeling Bridge Co.*, 18 How., 421; *Mississippi Bridge Co. v. Lonergan*, 91 Ill., 508.

It is true, however, that when the harbor line was established in 1871, and the plans for piers 1, 2 and 3 were approved, there was no statute in force expressly authorizing the Secretary of War to exercise such authority. But that power has been supplied in express terms by subsequent legislation. Section 12 of the River and Harbor Act of August 11, 1888, provides as follows: "Where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors, he may and is hereby authorized to cause such lines to be established beyond

which no wharves or piers shall be extended, or deposits made, except under such regulations as may be prescribed from time to time by him. (25 U. S. Stat., 425.)

After the passage of that act, on the 11th of September, 1890, another Board of Engineers was appointed by the Secretary of War to consider and report upon the subject of harbor lines at Chicago. It is stated in the report of the board that the maps and records of the harbor had been consulted, and the report of the Board of Engineers convened in 1871 upon the same subject examined; also that a public meeting had been held, which was previously advertised in the Chicago daily papers, at which all parties interested in the establishment of docks and harbor lines and in the use of the submerged lands within the harbor inclosure had been heard who wished to be heard.

The recommendations made by the board, so far as they are now material, are disclosed in the following extracts from their report:

"The construction of this harbor basin was commenced in 1871, and was practically completed, except dredging, by 1881. In 1871 a Board of Engineers, composed of Lieut. Col. I. C. Woodruff, Major G. K. Warren and Major D. C. Houston, Corps of Engineers, recommended the establishment of a dock line, which recommendation was approved by the Secretary of War, October 4, 1871, as follows:

"The board is of opinion that an open space of not less than 1,200 feet west of the breakwater, north of the north line of Randolph street, and 2,000 feet west of the breakwater south of that line, is sufficient for the purpose of a roadstead, and would recommend that a line commencing at a point on the south side of the United States south pier and 1,200 feet west of the west line of the breakwater, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south till it intersects an east and west line through the south end of the breakwater as at present de-

signed, be established as the harbor line, beyond which no wharves or other structures shall extend.'

"This harbor line, as established in 1871 and adhered to since that date, terminated southward, opposite the present end of the easterly breakwater just north of the present east entrance to this outer harbor basin, at which point the harbor, as then designed, terminated. Since that date the easterly breakwater has been further extended and the harbor, instead of having its southerly limit between Van Buren and Congress streets, of the City of Chicago, extends as far south as to between Twelfth and Thirteenth streets of the city.

"There have been no reasons presented to the board for any change in the position of the harbor line, as far as it has been established, nor for a change of direction of this line southward from Van Buren street. The reasons given by the Board of Engineers of 1871 of (for) the location of the harbor line as far as Van Buren street still hold good, and are applicable to the extension of this line southward throughout the limits of the harbor."

"The board, therefore, recommend the following harbor line for adoption:

"Commencing at a point on the south side of the United States south pier of the entrance to Chicago river, and 1,200 feet west of the west line of the easterly breakwater, outer basin, and running due south till it intersects the prolongation of the north line of Randolph street, thence due west 800 feet, thence due south to the southern limit of the outer harbor.

"Prior to 1888 there was no general law relating to harbors under which the relative rights of the States and of corporations and individuals claiming under the States or General Government, to the use of submerged lands by filling them up, and to riparian rights of accretion, dockage and wharfage, and of the rights of the public generally, or the United States collectively, to the unobstructed and free navigation of the navigable waters of the United States, could be limited or defined, but in the River and Harbor act

of 1888 is contained the following provision, under which the Board of Engineers is assembled:

"'Sec. 12. Where it is made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of harbors, he may, and is hereby authorized, to cause such lines to be established, beyond which no piers and wharves shall be extended or deposits made, except under such regulations as may be prescribed from time to time by him.'

"Whatever opinions and consequent actions may have heretofore been had as to the authority of the General Government, through its executive departments, in limiting riparian rights, or in directing and conditioning the application of these rights, the board consider that by the establishment under the act of August 11, 1888, of a dock or harbor line, 'beyond which no piers or wharves shall be built or deposits made,' the Secretary of War limits not only the riparian rights of individuals to wharfage or dockage, and the rights of the State to fill in or authorize the filling in of submerged lands, but limits, also, the rights of the public generally, or of the General Government, to the unobstructed rights of navigation, the limit being at this harbor line."

The report of the board was transmitted, September 19, 1890, through the office of the Chief of Engineers, to the Secretary of War, with the following endorsement:

"It having been made manifest to the Secretary of War that the establishment of harbor lines is essential to the preservation and protection of the harbor at Chicago, Illinois, a Board of Engineers was constituted by special orders from headquarters, Corps of Engineers, to consider and report upon the subject, and the board recommends for approval of the Secretary of War the harbor and dock lines described in the within report and delineated upon the accompanying chart.

"It is recommended that the line selected be approved, and that the Secretary place his approval both upon the report and the drawing submitted."

September 22, 1890, the line recommended by the board was approved by the Secretary of War.

The official report from which the foregoing extracts have been taken, and the action referred to consequent thereon, have been put in evidence (Rec., 890) and will be found on pages 942-950 of the printed record.

It is thus shown that since the original hearing in this case a harbor line has been established in the outer harbor by the government of the United States, pursuant to authority conferred by an act of Congress; and that this action was taken for the purpose of establishing a line to which wharves and docks might be extended by parties entitled to construct them.

By virtue of the power to "regulate commerce with foreign nations, and among the several States," the government of the United States possesses supreme authority in matters of this nature. As was said by the Supreme Court in *Pennsylvania v. Wheeling Bridge Company*, above cited, "that authority combines the concurrent powers of both governments, State and Federal," and when exercised is necessarily conclusive. The harbor line has, therefore, been established not only by competent public authority, but by the only sufficient and complete authority vested anywhere in our system of government.

The action of the War Department was final, and no appeal lies from it. It was the exercise of a quasi-judicial function; and the doctrine is general, that when the law has confided to a public officer the performance of a particular duty involving the exercise of judgment and discretion, and no provision has been made for the review of his proceedings by an appellate or supervisory tribunal, the act done within the scope of the authority conferred is binding and conclusive upon every one. The court has said on this subject:

"It is a universal principle, that when power or jurisdiction is delegated to any public officer or tribunal over a subject-matter, and its exercise confided to his or their discretion, the acts so done are valid and binding as to the subject-

matter; and individual rights will not be disturbed collaterally for anything done in the exercise of that discretion within the authority and power confided. The only question which can arise between an individual claiming a right under the act done and the public, or any person denying its validity, are power in the officer and fraud in the party. All other questions are settled by the decision made or act done by the tribunal or officer, whether executive, legislative, judicial or special, unless an appeal is provided, or other revision by some appellate or supervisory tribunal is prescribed by law." (*United States v. Arrondo*, 6 Pet., 729.)

Further judicial utterances to the same or similar effect will be found in the following cases: *Decatur v. Paulding*, 14 Pet., 497; *Ballance v. Forsyth*, 24 How., 183; *Belcher v. Linn*, 24 How., 508; *Gaines v. Thompson*, 7 Wall., 347; *Quinby v. Conlan*, 104 U. S., 420; *Smelting Co. v. Kent*, 104 U. S., 637; *Steel v. Smelting Company*, 106 U. S., 447; *Miller v. Mayor of New York*, 109 U. S., 385; *Lee v. Johnson*, 116 U. S., 48.

In line with those decisions are the two following from the Supreme Court of Illinois: *Robbins v. Bunn*, 54 Ill., 48; *Danforth v. Morrical*, 84 Ill., 456.

It appears, moreover, that the harbor line was established with especial reference to the necessities of lake commerce, after deliberate consideration and with full knowledge respecting the depth of water inside that line as well as the size and capacity of vessels then employed in navigation.

A map known as the "Houston Map" was put in evidence by counsel for the State (Map on page 10 in Book of Exhibits), which was made by Mr. Casgrain, an assistant engineer employed under Col. Houston in the Government surveys of harbors on Lake Michigan. Mr. Casgrain made a survey of the harbor of Chicago in 1869, for the purpose of locating the outside breakwater; and in 1871 he made another survey, under the direction of Col. Houston, *with soundings*, with a view to

the establishment of dock lines in the outer harbor. This map was prepared from these surveys, to be submitted to the Board of Engineers appointed by the Secretary of War for the purpose last mentioned, and bears upon its face an endorsement signed by the engineer officers composing the board of 1871, whose report is referred to above. Mr. Casgrain, a witness for the State, testifies *that the map was made for the information of that board.* (Rec., 671-2, 682-3.)

The soundings were made by Mr. Casgrain April 12, 1871, and he testifies that the figures on the map denote the actual depth of the water at the time the soundings were taken; but that the mean surface level of the lake was then two and one-tenth feet above *Chicago datum.* (Rec., 672.)

Chicago datum is the plane of low water in 1847, as established by the trustees of the Illinois and Michigan Canal, and afterwards adopted by the City as the base or *datum* for city levels. (Rec., 608, 655-6.)

The surface level in the river and lake is subject to constant fluctuations. Major Marshall testifies (Rec., 553-4) that there are annual fluctuations, which are extremely regular, amounting to a foot and one-tenth, and from that up to a foot and a half. These depend upon the seasons and the rain-fall. Then there are temporary or diurnal fluctuations, caused by the wind, evaporation, barometric pressure and other causes, which are sometimes as great as four or even five feet in twenty-four hours. Mr. Liljencrantz states that the annual fluctuations amount ordinarily to about two feet (Rec., 607, 609), and Mr. Casgrain, speaking of temporary changes in the surface level, says he has noticed a fluctuation of two and a half feet in half an hour. (Rec., 681-2.) Occasionally, as shown by the testimony of Mr. Greeley—a witness for the State—the surface level falls six inches or more below *Chicago datum* (Rec., 656); and in 1893, according to Capt. Harmon, it was below that stage, on the average, throughout the season. (Rec., 759.) But the ordinary height of water in the harbor

is said by this witness to be about one foot above Chicago datum.

Attention will now be directed to the "Houston Map." The court will observe a rectangular space marked out on the map adjacent to the south pier at the mouth of the river, on which are inscribed the words: "Proposed Docks of Illinois Central Railroad Company." This is the area occupied by the Illinois Central Piers 1, 2 and 3, and two intervening slips. When the map was made the site was covered with water, and soundings appear to have been taken there at intervals of about 100 feet, which are expressed in feet and tenths of a foot. Ten lines of soundings are shown, which are here reproduced, *beginning with the west line, next to the shore:*

												AVERAGE
9.3	9.7	9.4	9.7	9.7	12.7	8.7	10.3	10.7	11.7	12.7		10.4
9.7	9.7	9.7	10.2	10.1	10.1	10.2	11.1	11.4	12.2	12.6		10.6
10.1	9.7	10.0	10.3	10.4	10.4	10.9	11.6	11.7	12.5	12.7		10.9
10.3	9.7	10.2	10.9	10.8	10.9	11.5	11.7	11.9	12.1	12.2		11.1
10.4	10.7	11.0	11.3	11.1	11.5	11.5	11.2	10.4	9.5	6.7		10.4
10.2	12.5	11.7	11.5	11.2	11.0	10.5	11.1	11.1	10.9	9.7		11.0
10.4	12.2	11.6	11.7	9.7	8.5	8.5	9.1	8.5	8.5	8.5		9.7
10.8	10.7	9.2	10.7	10.3	10.0	10.3	9.3	9.5	8.4	8.4		9.8
10.9	9.7	9.7	12.0	12.3	12.1	11.7	10.7	8.7	8.7	8.7		10.4
10.5	9.7	14.3	15.2	12.5	14.0	13.2	12.1	9.5	9.3	9.1		11.8

The whole number of soundings within the entire area is 110, and the average depth of water indicated is 10.6 feet. The average depth on the outer line, shown by the soundings, is 11.8 feet.

To ascertain the depth *below Chicago datum*, two and one-tenth feet should be deducted from the figures placed on the map. Thus the depths indicated by the soundings along the exterior line spoken of above, when referred to the plane of reference known as *Chicago datum*, range from 7 to 13.1 feet, the average depth being 9.22 feet; and the average depth of water over the entire area is reduced to 8.54 feet.

Another map, known as the Wheeler map, made in 1869, under the direction of Col. Wheeler of the U. S. Corps of Engineers, was also put in evidence by counsel for the State.

(Map on page 7, Book of Exhibits.) Soundings are also noted on this map within the area now occupied by Piers 1, 2 and 3, and the two intervening slips. The figures are given in parallel lines *running out easterly from the shore*. The soundings noted, expressed in feet and tenths of a foot, are as follows:

														AVERAGE
9.0		9.6	9.7	9.8	10.2	11.0	11.6	12.2	12.2	11.5	11.4	16.0	12.2	11.2
9.2	9.4	9.5	9.6	9.6	10.0	10.6	11.0	12.0	12.0	12.0	11.0	10.0	9.0	10.3
9.3	9.5	9.0	10.0	9.0	10.3	10.8	11.0	11.5	12.0	11.5	8.9	8.0	8.3	9.9
9.6	9.5	10.0	10.2		10.5	10.7	11.4	11.6	14.6		8.5	8.0	8.2	10.2
9.0		10.0	9.0	10.0	10.5	11.0	11.2	11.4	10.5	8.6	8.0	7.3	8.0	9.5
10.5	9.3	10.5	9.9		10.8	11.4	11.6	11.0	8.4	7.8	12.0	7.8	8.2	9.9
8.6	8.0	8.6	11.0	11.2	11.0	11.5	11.8	9.4	7.6	7.0	11.1	7.6	8.0	9.4
9.0		8.6		11.5	11.5	11.4	12.0	9.3	6.9	8.5	7.7	8.2	8.4	9.4
10.7	10.7		11.0	12.0	12.2	12.3	11.5	7.4	7.8	8.0	9.3	9.0	8.7	10.0
10.0	11.7	12.0	12.4		12.6	12.0	8.2	7.0	7.3	8.0	8.0	8.2	8.7	9.7
10.0	7.7	12.2	12.6			12.8	12.6	10.3	7.0	7.6	7.7	8.2	8.4	9.6
14.3		12.1		12.8	12.8	12.2	7.5	7.0	9.7	8.0	8.0	8.0	8.2	10.0

The average depth on each line is noted in the column at the right. The average depth over the entire area was not quite ten feet. Mr. Casgrain, who made the soundings between July 20th and August 20, 1869, testifies that the figures on the map denote the actual depth of water at that time, but that the mean surface level of the lake was then one foot and fifty-five hundredths above Chicago datum. (Rec., 670.) To ascertain the depth below that plane, 1.55 must therefore be deducted from the measurements given above. This reduces the average depth over the whole area to something less than 8.45 feet below Chicago city datum.

There is substantial agreement between the results shown on these maps and those obtained by Mr. Kennedy and others, who made soundings in the same place in February, 1872, for the Illinois Central Railroad Company,—proper allowance being made for the different planes of reference adopted by the parties.

It is thus proved conclusively that the Board of Engineers appointed in 1871 to consider and report upon the plans for docks proposed to be built by the Illinois Central Railroad Company in the outer-harbor, and to establish limiting lines for

such constructions in that basin, acted upon full information, furnished them officially by Col. Houston (one of their own number and the Engineer Officer then in charge of the harbor improvements at Chicago), as to the depth of the water then overlying the site of the projected improvements. The board was composed of three officers of the U. S. army in the engineer service;—one of them, as before stated, the resident engineer on duty at Chicago, and all of them, presumably, exceptionally well qualified by their training and experience for the service required of them. They had the Houston Map before them, and placed upon it a note over their own signatures describing the harbor lines which they recommended. It appears furthermore from their report, which has been put in evidence, that this map was submitted, with their report, to the Chief of Engineers. It also appears that the Chief of Engineers endorsed their recommendation in respect to the harbor line, and also in regard to the plan of wharves (north of Randolph street) which had been submitted by the Railroad Company; and the whole was approved by the Secretary of War.

The Board of Engineers appointed in 1890, to consider and report upon the subject of harbor lines at Chicago, was likewise composed of three officers of the U. S. Engineer corps—one of them (Major Marshall) the officer in charge of the river and harbor improvements at Chicago. It appears from their report, that the maps and records of the harbor were consulted, and that the report of the Board of Engineers convened in 1871 was examined. Thus it is clear that their information in respect to the depth of water inside the proposed harbor line was as full and complete as that possessed by the board of 1871. The line proposed by that board was approved, with the further recommendation that it be extended from the line of Van Buren street south to the southern limit of the harbor. This recommendation was endorsed by the Chief of Engineers, and received the approval of the Acting Secretary of War.

We submit that this action of the War Department, on a subject clearly within its special jurisdiction, should be accepted as conclusive. But if the matter were open to re-examination and review in the courts, it is not to be disputed that the deliberate judgment of two boards of engineers, composed of six different officers—two of them for several years in charge of the harbor improvements at Chicago,—re-enforced by the concurring opinions of two different Chiefs of the Corps of Engineers, all acting officially on a subject within the scope of their duties, ought to be accepted as decisive, unless there is conclusive evidence before the court to discredit that judgment.

There is no such evidence. It is proved that none of the piers or other works constructed by the Railroad Company in the outer harbor extend beyond the harbor or dock line; and there is no evidence in the case even *tending* to show that the dock line is fixed at a greater distance from the shore than is reasonably necessary to accomplish the purposes for which the harbor was designed.

To make the harbor useful for commercial purposes, docks must be provided that can be reached by vessels of all sizes employed in lake navigation. The only constructions in the outer harbor adapted to these purposes are those which have been provided by the Illinois Central Railroad Company. No vessel drawing over $16\frac{1}{2}$ feet can go up the Chicago river above the La Salle street tunnel except in a very high stage of water; and the bends in the river and the bridges are serious obstructions to the passage of large-sized vessels that can be taken over the tunnels. Major Marshall testifies that from one to three tugs are required in the movement of each boat, that it takes usually fully a day for it to get to the elevators above Twenty-second street, and as long to get back, and that the cost of loading and getting in and out of the river is about one-half the cost of the trip to Buffalo. (Rec., 894.)

The three piers built by the Illinois Central Railroad Com-

pany between Randolph street and the river have slips between them, which were dredged to the depth of 18 feet in order to accommodate vessels coming to the piers. This is proved by the testimony of Mr. Moore (Rec., 926), who also testifies that the slip known as slip C (lying east of Elevator B) has been dredged to the same depth to enable large boats to get into it. Captain Harmon states that the large grain vessels frequently complete their lading at the Illinois Central elevators, because they cannot get over the tunnels in the river when loaded to their full capacity. (Rec., 760.) It has also been shown that Piers 1, 2 and 3 did not extend into water more than 10 or 11 feet deep below Chicago *datum* at the time they were constructed; and it appears from soundings made by Mr. Greeley in 1894 (Rec., 654, and Map on page 20, Book of Exhibits), and by Messrs. Tabet and Grafton in 1895 (Rec., 883, and Map on page 26, Book of Exhibits), that the water at the end of the piers was not deeper then, notwithstanding the dredging which had been done in and about the slips, than it was in 1872.

The testimony of the expert witnesses as to the reasonable and necessary depth of water at a dock to accommodate vessels now in constant use in the commerce of the lakes has been already referred to. Not one of these witnesses is of opinion that less than 17 feet is sufficient; almost all of them say 18 to 20 feet. To four of them—Captain Prindiville, Captain Harmon, Captain Van Dolson and Redmond Prindiville—all practical men who have had many years' experience in lake navigation, the question was put: "Assuming that the depth of water at the outer ends and sides of these structures (Piers 1, 2 and 3, and the pier and dock between Twelfth and Thirteenth streets) does not in any case exceed 14 or 15 feet, in the ordinary stage of water, do they, in your opinion, extend beyond the point of practical navigability, keeping in mind the manner in which the commerce of the lakes is now transacted in vessels?" The answer of each witness was in the neg-

ative; and no one was called to impugn their testimony. The necessary inference is that no competent witness could be found to express a contrary opinion.

It appears that the piers are 1,000 feet long. But the south pier, which was built by the United States Government before the Illinois Central piers were constructed, lying immediately adjacent to Pier 1, is 225 feet longer. The docks on the opposite side of the river occupied by the Peshtigo Company, extend at least 500 feet farther into the lake, and probably, although the evidence on this point is not so exact as it might be, not much, if at all, less than 1,000 feet. The pier built in 1893 by the Columbian Exposition Company opposite the fair grounds at Jackson Park, to furnish a suitable landing place for passenger steamers, extends into the lake, as stated by Major Marshall, about 2,400 feet; and the Illinois Steel Company's pier in front of their works at South Chicago, according to the testimony of the same witness, is 2,100 feet in length. Neither of these structures is considered an obstruction to navigation, for the very plain reason that a shorter pier would not answer the purpose for which a pier was needed. The length must obviously depend upon the distance necessary to be crossed to reach navigable water;—and by navigable water is meant, not water of sufficient depth to float an ordinary fishing boat, but water that can be navigated by vessels of all sizes that are regularly and constantly engaged in carrying on useful commerce between different ports on the great lakes. So, the inquiry to which we are confined by the mandate of the court in the present case, is in no way dependent upon the lineal dimensions of the piers in question; it is simply, whether they "extend into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lakes."

It appears that counsel for the State are not satisfied with the issue thus clearly defined in the directions given by this court. It is strenuously contended that the line of prac-

tical navigability referred to in the mandate is to be determined, not with reference to the manner in which commerce in vessels *is* conducted on the lake, but with reference to the size and draft of vessels in use at the time the structures in question were erected by the Railroad Company. In other words, the contention is, in effect, that although these structures extend no farther into the lake than is reasonably necessary to afford suitable commercial facilities for vessels now employed in lake navigation, yet, if it can be gathered from the evidence that they extend farther than was absolutely requisite thirty years ago to accommodate the comparatively diminutive vessels of that early period, the court should order the excess to be demolished and removed. It would be equally sensible to fill up the channels which have been deepened during the last twenty-five years and destroy the works erected by the Government to open a passage for vessels of twenty feet draft between Chicago and Buffalo.

If the respondent's piers do not extend into the lake beyond the harbor line established by competent public authority at any time before final judgment, or, if no harbor line had been lawfully established, beyond the line to which, in the condition of things now existing, such structures may be lawfully extended, *they cannot be said to interfere with the enjoyment of any public right*, and it would be a most anomalous proceeding to require them to be abated. The rule in such cases is definitely settled in the Wheeling Bridge case, before referred to, and was again applied in the case of the Clinton Bridge, which also has been previously cited. The directions of this court in the present case conform to those rulings; and it is not believed that the court will depart from those instructions.

But if the words of the mandate were changed and the test applied, which is contended for by counsel for the State, it would not affect the result of the present controversy. It appears from the testimony of Captain Harmon—which stands uncontradicted—that as early as 1869 grain vessels were loaded

at Chicago to a draft of 14 feet. Those drawing 13 feet appear to have been in common use. Loaded vessels of that class could not have been laid alongside the Illinois Central piers, at the time the piers were built, without dredging the slips. It is also to be borne in mind that the tendency then, as before and ever since, was to bring into use vessels of larger size and deeper draft. This fact is noticed in the report made by the Board of Engineers in 1871, to which we have before called the attention of the court, where it is said, that "in the future it is probable that vessels will seek Chicago harbor of much greater draft than can now enter the Chicago river, and these will necessarily seek the outer harbor." A good practical illustration of this tendency, and of the actual necessities felt at the time, is furnished by the facts shown in relation to the Washington street and La Salle street tunnels under the river. The Washington street tunnel was built in 1866 or 1867, and the channel above it was 15 or 15½ feet deep at a full stage of water. In 1869, when work on the La Salle street tunnel was commenced, that depth had been found insufficient. The public authorities deemed it necessary to sink the new structure low enough below the river to admit of a practicable channel over it of 16.8 feet, at the same stage of water, and that has since been found to be very inadequate. Illinois Central Pier No. 1 was erected in 1872 and 1873—Piers Nos. 2 and 3 in 1880 and 1881; and it is a significant fact that neither of those structures extended into water of anything like the depth of the channel over the Washington street tunnel. The difference was certainly not less than two or three feet. When these facts are considered, and the frequent fluctuations in the lake level, which must be provided against, are taken into account, it seems impossible to say that the harbor line fixed upon by the Board of Engineers in 1871 was improvidently established.

IV.

THE PIER AND DOCKS BETWEEN TWELFTH AND SIXTEENTH
STREETS.

One further question is included in the investigation directed by the mandate: Do the pier and docks constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets extend into the lake beyond the line of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake?

By the pier is meant the structure known as the Thirteenth street pier, which was built in 1885; and by the docks, as we suppose, the structures south of that pier built in 1870, and the Weldon slip completed since the original decree in the Circuit Court, and pursuant to the permission there given. (Rec., 237.) These works are outlined in the tracing referred to by Mr. Tarbet in his testimony before the master,—a copy of which will be found on page 27 of the Book of Exhibits. The Thirteenth street pier and the works south of the pier (except the slip) are also delineated on the Morehouse Map (Map on page 3, Book of Exhibits).

It appears from the evidence taken in this case for the original hearing, that the railroad was located and built within the City of Chicago (which then extended south only to Twenty-second street), along the margin of the lake, pursuant to the provisions of an ordinance of the common council adopted June 14, 1852. The ordinance required the company to erect and maintain a continuous wall or structure of stone masonry or pier work, of regular and sightly appearance, in the lake, from the north side of Randolph street to the southern boundary of Lake Park, at a distance of not more than 300 feet from the western or inner line pointed out for its right of way, and to "continue said works to the southern boundary of the city, at such distance outside of the track of said road as

may be expedient, which structure and works shall be of sufficient strength and magntiude to protect the entire front of said city between the north line of Randolph street and its southern boundary from further damage or injury from the action of the waters of Lake Michigan". Reference is made to this ordinance in the former opinion of the court in the present case (146 U. S., 442); and the ordinance is set forth at length on pages 449-454 of the printed record.

The evidence further shows that for several years preceding the passage of the ordinance, the waters of the lake had been constantly encroaching upon the shore between Randolph street and Sixteenth street. This process of erosion was caused apparently by the construction of the piers by the Government at the mouth of the river in 1834 or 1835, and it appears to have been greatly accelerated by the extension of the piers farther into the lake a few years later. Attempts were made from time to time by the property owners on Michigan avenue and by the city to protect the shore, but their efforts proved ineffectual. When the railroad was located in 1852, more than half the dry land which in 1836 was included within the limits of Michigan avenue and Lake Park had been worn away. At that time the lake had advanced so far upon the shore, that from Randolph street to Jackson street only a narrow margin of land from 90 to 112 feet wide was left between the west line of the avenue and the lake, and frequent alarms disturbed the mayor of the City and other residents on Michigan avenue for the safety of their property. At the south end, the width of the park had been reduced since 1836 from 600 or 700 feet to 400. (Rec., Testimony of J. Y. Scammon, 268, 277-8, 297, 396-399; R. B. Mason, 286-8.)

Similar effects had been wrought during the same period upon the shore between Twelfth street and Sixteenth street. In 1840 the dry land along this part of the shore extended into the lake beyond the present works of the railroad company. Many acres were worn away by abrasion between 1835 and

1852. (Rec., Testimony of J. Y. Scammon, 296-8; C. C. P. Holden, 407-411.)

In 1870, the old breakwater from Twelfth street south, which had been built in 1852, had fallen into decay, and experience had shown the necessity of having this protection placed at a greater distance from the railroad tracks. By the ordinance of 1852 the railroad company was required to maintain this protection at such distance outside of the tracks "as may be expedient"; and when it became necessary to replace the old structure in 1870 the new work was made more durable and placed a little farther from the shore, on the line shown on the Morehouse Map (near the south end of the map), marked "Built 1870". It consisted of cribs made of timber, sunk in the water and loaded with stone, and it appears to have been completed, or nearly completed, in 1870, as far south as the prolongation easterly of the north line of Lot 21. (Rec., 330.) Mr. Jeffery testifies that the structure was needed to protect the works of the company at Weldon station (at the foot of Fourteenth street), where it had a machine shop, engine house, and other buildings. The lake, he says, made inroads on this property at times during heavy storms, and sometimes even washed away the railroad tracks. (Rec., 363.)

Afterwards this breakwater was extended farther south to the prolongation easterly of the center line of Sixteenth street. The same witness explains the necessity of the new breakwater, and we give the explanation in his own words:

"There were several objects; first was the fact, that, as the most violent storms come from the north-east, the waves run along the diagonal part of the breakwater of the outer harbor, and, following the line of that breakwater, strike into the company's premises at or near lot 21. The force of the waves and storm was felt more between the north line of lot 21 and Sixteenth street than at any other point along the lake shore, except around the curve near the Douglas monument. Experience showed that it was necessary to have the protection or breakwater removed some distance at

the point under consideration from the company's right of way and from its main tracks; and with that end in view this work was extended south to about the center of Sixteenth street. Another object was, that it was thought desirable to construct a slip or basin between the Company's shops, near lot 21, and Sixteenth street, the slip to be substantially north and south, so that vessels having Company's materials or having freight to handle could go down to the south end of the slip and pass into that slip and lie there safe from storms. The plan has not been carried out, but is still contemplated, and the subject is under consideration." (Rec., 364.)

Mr. Jeffery states in that connection, that a space 100 feet wide had been left at the south end of the proposed slip for the entrance of vessels.

It appears from the testimony of this witness that the breakwater was constructed of wooden crib-work, made of timbers securely bolted and riveted together. The cribs, when constructed, were floated to the desired location and filled with stone and sunk to the bottom of the lake. Then a superstructure of timber was erected upon the sunken part of the crib, and that also was filled with stone to a height of four or five feet above the ordinary level of the lake. After being filled with stone, the crib work was covered over with heavy planking, to prevent the stone from being washed out by the action of the waves.

After the structure was completed, in two violent storms that occurred, timbers were torn out of the Government breakwater in the outer harbor, and the one north of the mouth of the Chicago river, and these, together with other timbers piled on one of the breakwaters, were driven down by the storm in large quantities against the Company's work, and with such force as to tear the structure apart and demolish it so far as it was above the level of the lake. At the time Mr. Jeffery's evidence was taken (May 6, 1887) work was in progress to repair the damages caused by these storms. (Rec., 365.)

The large pier or wharf shown on the Morehouse map at the foot of Thirteenth street was built in 1885 and 1886. The circumstances leading to its construction are related in the testimony of Mr. Jeffery. (Rec., 350-362.) At a meeting of the Board of Engineers convened by the Secretary of War in 1882, which Mr. Jeffery attended, the fact was brought out that the outer harbor was not protected by a breakwater at the south end from southerly and south-easterly storms. It occurred to Mr. Jeffery, while listening to what was said on that subject, that a pier projecting into the lake from near the foot of Thirteenth street would serve the double purpose of intercepting the seas that might come from a southerly direction, and thus afford protection to shipping in the harbor, and of furnishing at the same time a convenient wharf for the use of the railroad company. He made a rough pencil sketch, in the presence of the Board, of the pier afterwards built, and, after consultation with Major Lydecker, the resident engineer, prepared a plan for the pier which met his approval. The plan was forwarded by Major Lydecker to the Chief of Engineers at Washington, and on the 12th of June, 1882, Mr. Jeffery was officially advised by that officer that the War Department had no objection to the construction of the proposed dock, provided that no change be made in its location and length, as shown on the plan presented. The pier was subsequently built by the Railroad Company, at a cost of about \$130,000. No change was made in the location or length of the pier, but it was built fifty feet wider than was at first intended. It is shown by the testimony of Major Marshall that it does not extend quite out to the harbor line established by the War Department. (Rec., 891-2.)

The slip at the foot of Sixteenth street is wholly inside the line of breakwater built in 1882. No change has been made in the position of that structure since it was first erected.

It has never been charged or pretended that these works, or any of them, have caused any obstruction to navigation.

No complaint of that kind has ever come from persons interested in shipping. Nor do they, or any of them, extend into the lake beyond the line of practical navigability designated in the mandate.

It appears from the testimony of Wm. L. Tarbet and Charles E. Grafton, both civil engineers, that soundings were carefully taken by them, between March 12 and April 30, 1895, around the Thirteenth street pier and the Weldon, or Sixteenth street, slip, and the intervening dock line; and that the results obtained, showing the depth of the water below city *datum*, were accurately noted on the map made by Mr. Tarbet, which has been put in evidence, marked "Defendant's Exhibit No. 7." The soundings, made at intervals of 100 feet, were taken at the edge of the dock, and at distances from the edge of 10, 25, 50 and 75 feet. (Rec., 884, 904, and Map on page 27, Book of Exhibits.)

Along the line of the outer piling, extending from near the south line of Twelfth street produced to the prolongation of the center line of Sixteenth street (excluding the Thirteenth street pier), the depths noted in feet and tenths of a foot are as follows:

AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
6.1	8.2	8.6	9.7	11.0
0.0	1.2	8.7	8.7	9.4
6.9	8.5	9.4	9.8	10.5
10.4	11.2	11.5	11.7	11.9
10.6	12.5	12.5	10.9	11.7
9.8	11.7	11.8	12.0	12.2
10.0	12.3	12.2	12.4	12.6
8.3	12.2	12.8	12.8	13.0
10.2	13.1	13.0	13.1	13.2
9.7	12.8	13.6	13.2	13.5
8.9	12.1	13.3	13.0	13.2
6.8	11.1	13.0	12.4	13.2
9.9	11.5	13.0	13.0	13.0
8.2	12.1	13.1	13.2	13.2
8.9	10.8	13.3	13.2	13.1
5.7	7.5	11.7	12.2	12.5
10.5	9.8	11.8	12.2	12.8
10.0	11.3	11.6	12.2	12.6
9.7	11.5	11.4	12.1	12.9
10.4	11.3	11.2	11.9	12.6
9.7	11.0	11.2	11.9	12.6
9.5	11.5	11.6	12.1	12.9
8.1	8.8	10.9	12.5	12.7
12.3	13.3	13.4	14.0	13.4
<i>Average.</i> 8.3	10.7	11.8	12.1	12.5

It will be observed that the depths indicated along the edge of the piling range from zero to 12.3 feet. Only in one spot, at the extreme southerly end of the piling, is a depth shown of more than 10.6 feet. All but eight of the soundings are less than 10 feet—the general average being 8.3 feet.

At the distance of 25 feet from the edge, the soundings range from 8.6 feet to 13.6 feet. In five spots on this line a depth is shown of a little more than 13 feet. All but eleven soundings are less than 12 feet—the general average being 11.8 feet.

At the distance of 50 feet from the edge, the soundings range from 8.7 feet to 14 feet. In one spot only, at the south end of the piling, is the latter depth shown. Six soundings indicate a depth of from 13 to 13.2 feet; ten, a depth of from 12 to 12.8 feet; the general average being 12.1 feet.

The soundings in front of that part of the outer piling which was constructed in 1882, as indicated on the Morehouse Map, are shown in the last eight lines of the foregoing tabular statement. They indicate a depth of water at the edge of the piling of from 8.1 to 12.3 feet. Only three soundings show a depth of more than 10 feet, the general average being 10 feet and an infinitesimal fraction.

At the distance of 25 feet from the edge, those soundings range from 10.9 to 13.4 feet, the general average being 11.6 feet.

At the distance of 50 feet from the edge, the soundings range from 11.9 to 14 feet, the general average being 12.3 feet.

The depths of water about the *Thirteenth street pier*, as shown by these soundings, are as follows:

NORTH SIDE OF THE PIER, BEGINNING AT THE SHORE.				
AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
3.0	3.7	7.1	9.2	9.2
9.0	9.6	9.8	9.9	10.0
9.5	9.3	10.0	10.0	9.6
7.8	8.5	8.8	9.2	9.7
8.2	9.0	9.4	9.4	9.5
9.4	9.6	10.1	10.2	10.2
9.5	9.9	10.1	10.2	10.1
9.8	9.8	10.2	10.2	10.6
10.2	11.1	11.1	10.3	10.6
12.3	12.4	12.7	12.9	12.4
12.1	13.5	14.0	13.9	14.3
<i>Average..</i> 9.16	9.67	10.3	10.5	10.56

EAST END OF THE PIER.				
AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
12.1	13.2	14.1	14.2	14.6
5.3	6.4	13.4	14.2	15.0
12.2	12.4	12.0	13.4	14.5
12.2	13.3	14.4	14.2	14.2
<i>Average.</i> 10.45	11.32	13.47	14.	14.57

SOUTH SIDE OF THE PIER, BEGINNING AT THE SHORE.

AT THE EDGE.	10 FEET DISTANCE.	25 FEET.	50 FEET.	75 FEET.
6.9	8.5	9.4	9.8	10.5
8.7	9.6	9.8	10.8	11.1
9.8	9.7	10.5	11.2	11.4
9.9	9.9	10.8	11.6	11.7
10.2	10.3	10.8	11.6	12.1
9.1	9.5	10.7	11.4	12.1
9.8	10.1	10.9	11.6	11.9
10.5	10.5	11.2	11.9	12.2
10.6	10.7	11.6	12.0	12.6
12.2	13.1	13.3	13.8	14.0
<i>Average.</i> 9.77	10.19	10.9	11.57	11.96

These results are not essentially different from those obtained by the complainant's witness, Mr. Greeley, and noted on his map, marked "Complainant's Exhibit O". (Map on page 21, Book of Exhibits.) Mr. Greeley testifies that his soundings were taken August 1, 1894. (Rec., 656.) They purport to have been made at intervals of 100 feet, and to show the depth of the water in feet and tenths of a foot below city *datum*, at the edge of the dock, and at distances of 25, 50 and 100 feet therefrom.

The soundings along the line of *outer piling* between Twelfth and Sixteenth streets extended (excluding the Thirteenth street pier) are noted on the map as follows:

AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
6.8	10.3	10.3	12.3
7.8	9.4	9.3	11.3
9.8	10.8	11.8	12.3
10.8	13.8	12.3	12.8
11.3	13.3	12.8	13.3
10.8	13.2	13.5	14.3
11.8	14.3	13.8	14.3
12.8	13.8	13.8	14.8
11.3	13.3	14.3	14.8
10.3	14.8	14.8	14.8
10.3	14.8	13.8	14.8
10.3	14.8	14.8	15.3
9.8	14.8	14.8	15.3
11.8	14.8	14.8	15.3
11.3	14.3	14.8	14.8
12.3	13.3	13.8	14.8
11.8	12.8	13.3	14.3
8.3	12.8	13.3	14.3
11.8	12.3	12.8	14.8
9.3	12.8	13.3	14.8
12.3	12.3	13.3	14.8
9.8	12.3	13.8	14.8
11.3	13.8	14.8	15.3
13.8	14.3	14.8	14.8
<i>Average..</i> 10.7	13.2	13.45	14.3

The depths noted along the edge of the piling range from 6.8 to 13.8 feet. Only in four spots are they more than 11.8 feet. One-half of the soundings are less than 11 feet, and the general average is 10.7 feet.

At the distance of 25 feet from the edge, the soundings range from 9.4 to 14.8 feet, the general average being 13.2 feet.

At the distance of 50 feet from the edge, the soundings range from 9.3 to 14.8 feet, the general average being 13.45.

The soundings in front of that part of the outer piling which was constructed in 1882, as indicated on the Morehouse Map, are shown in the last nine lines of the foregoing tabular statement. They indicate a depth of water at the edge of the piling of from 8.3 to 13.8 feet. Only three soundings show

a depth of more than 12 feet, the general average being a little less than 11.2 feet.

At the distance of 25 feet from the edge, the soundings range from 12.3 to 14.3 feet, the general average being 12.9 feet.

At the distance of 50 feet from the edge the soundings range from 12.8 to 14.8 feet, the general average being a trifle less than 13.7 feet.

The soundings noted on the *Greeley Map* about the *Thirteenth street pier* are as follows:

NORTH SIDE OF THE PIER, BEGINNING AT THE SHORE.			
AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
6.8	8.8	8.6	10.3
8.8	10.8	10.6	10.8
10.3	10.8	10.8	10.8
7.8	9.3	9.8	11.3
9.4	9.8	9.8	11.3
8.5	10.2	10.8	11.8
10.4	10.8	10.8	11.8
9.8	11.8	11.0	11.8
10.8	11.3	11.8	11.8
12.3	12.8	13.3	13.3
11.8	14.8	14.8	14.8
14.3	14.8	15.8	15.3
<i>Average, 10.08</i>	11.3	11.5	12.1

EAST END OF THE PIER.			
AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
14.3	14.8	16.3	14.8
5.8	10.8	15.8	15.8
13.3	14.8	14.8	15.3
14.8	15.3	15.5	15.3
<i>Average, 12.05</i>	13.7	15.6	15.3

SOUTH SIDE OF THE PIER, BEGINNING AT THE SHORE.

AT THE EDGE.	25 FEET DISTANCE.	50 FEET.	100 FEET.
8.8			
9.0	10.8	11.8	12.3
10.8	11.8	12.4	12.8
10.8	11.8	12.3	13.3
11.3	11.8	12.8	13.3
10.3	11.8	12.8	13.3
10.8	11.8	12.8	13.8
11.3	11.8	12.8	13.8
11.3	14.3	14.3	13.8
14.8	14.8	14.3	14.8
<i>Average, 10.9</i>	12.3	12.9	13.4

It will be noticed that Mr. Greeley's measurements are somewhat in excess of those made by Messrs. Tarbet and Grafton. But if we accept Mr. Greeley's measurements, it appears that a vessel of ordinary dimensions drawing more than 10 feet cannot be laid alongside the dock anywhere between the Thirteenth street pier and Sixteenth street. No vessel drawing more than $13\frac{1}{2}$ feet can approach within 50 feet of it.

On the north side of the Thirteenth street pier, the average depth of water is only 10.08 feet, and even at the end of the pier, on that side, there is not water of sufficient depth to float a vessel of ordinary length drawing over 12 feet. Vessels of ordinary dimensions, drawing more than 13 feet, cannot approach within 50 feet of the pier anywhere on that side.

At the easterly end of the pier, the average depth of water, according to Mr. Greeley's measurements, is 12.05 feet. The extreme depth noted is 14.08 feet, but the end of the pier is not accessible to vessels drawing over 13 feet, and vessels of 15 feet draft cannot approach within 50 feet of it.

On the south side of the pier, Mr. Greeley's soundings

range from 8.8 to 14.8 feet. The average depth is 10.9 feet. Only in one spot—at the extreme outer end—does the depth anywhere exceed 11.3 feet.

At the distance of 50 feet on that side the soundings range from 11.8 to 14.3 feet—the average depth being 12.9 feet. Only in two spots does the depth exceed 12.8 feet.

The results of the survey made by Messrs. Tarbet and Grafton are still more striking.

The soundings made by them in front of the dock between the Thirteenth street pier and Sixteenth street, range from 8.1 to 12.3 feet, the average depth being 10 feet. Those taken at 50 feet from the dock line range from 11.9 to 14 feet, the average depth being 12.3 feet. According to this survey, no vessel drawing more than 12 feet can approach to within 50 feet of the dock.

On the north side of the Thirteenth street pier, their soundings show an average depth of 9.16 feet, and there is nowhere a greater depth than 12.3 feet. At a distance of 50 feet from the dock, on that side, the soundings range from 9.2 to 13.9 feet, the average depth being 10.5 feet. Only in two spots does the depth exceed 10.3 feet.

At the end of the pier, their soundings show an average depth of 10.45 feet, the extreme depth being 12.2 feet. At a distance of 50 feet from the end, the depths noted are 14.2, 14.2, 13.4 and 14.2 feet.

On the south side of the pier, the soundings taken by them range from 6.9 to 12.2 feet. Only in one spot does the depth exceed 10.6 feet. At a distance of 50 feet from the pier, on that side, their soundings range from 9.8 to 13.8 feet. Only in two spots does the depth exceed 11.9 feet.

It appears from the testimony of Mr. Liljencrantz (Rec., 602-615) that he made a survey for the Government in May, 1878, for the purpose of locating the south-east breakwater afterwards constructed for the outer harbor. A map which he made, showing a large number of soundings taken at that time

in front of the shore, has been put in evidence by the complainants, marked "Complainants' Exhibit E." (Map on page 11, Book of Exhibits.) The space covered by the map is that part of the lake adjacent to the shore lying between the following described lines: A line 1,300 feet north of the center line of Twelfth street, extended, and parallel thereto, and a line about 1,850 feet south of the center line of Twelfth street, extended, and parallel thereto. The line last described marks the southerly end of the outer piling constructed by the Railroad Company in 1870, inscribed on the Morehouse Map "Built 1870."

Mr. Liljencrantz testifies (Rec., 608) that the plane to which the soundings on this map were referred is one foot and eight-tenths above city *datum*—that is to say, the depths noted are one foot and eight-tenths greater than they would have been if the surface of the water when the soundings were taken had coincided with the plane of reference known as Chicago city *datum*.

Three soundings are noted on this map along the U. S. dock line extended to Twelfth street, as follows: 14.5 feet, 15 feet, and 15.2 feet.

Along the line of the outer piling, south of Twelfth street, four soundings are noted: 12.2 feet, 16.3, 12.5, 13.8. The average depth indicated is 13.7 feet, or 11.9 feet below city *datum*.

Twenty-two soundings are noted within the area now occupied by the Thirteenth street pier, ranging from 14.8 to 16.3 feet. The average depth of water indicated is 15.1 feet, or 13.3 feet below city *datum*. Three soundings at or near the end of the pier indicate a depth of 15.5 feet, or 13.7 below city *datum*. It will be noticed that these soundings correspond very closely to those noted along the dock line north of Twelfth street. Nowhere on the site of the pier, or at the end or sides of the pier, is the water shown to have been deep enough to float a vessel of the ordinary dimensions drawing 15

feet. At a full stage of water, vessels of 16 feet 8 inches draft can pass the Washington street and La Salle street tunnels. According to the soundings noted on this map, a vessel of that draft could not approach from any direction to within 1,300 feet of the pier. A vessel drawing $15\frac{1}{2}$ feet could not get within 800 feet of it.

That map was made, as already stated, in 1878. Fourteen years afterwards another survey of the outer harbor was made for the Government, and the map of the survey, produced from Major Marshall's office and identified by him, has been put in evidence, marked "Defendant's Exhibit No. 10." (Map on page 29, Book of Exhibits.) It will be seen on comparing this map of 1892 with the map made in 1878, that very remarkable changes had occurred in the interim in the depth of the water in front of the Company's works between Twelfth and Sixteenth streets. The soundings noted on the later map are expressed in feet and tenths of a foot and have reference to Chicago city *datum*. Along the line of the outer piling between Twelfth and Sixteenth streets, the soundings noted are 8.6, 8.9, 9.3 and 12.1.

Two soundings are shown on the north side of the pier, at a distance approximately of 100 feet therefrom, of 12.6 and 12.5 respectively; one at the end of the pier, about 100 feet distant apparently, of 14.3; and two on the south side of the pier of 10.3 and 11.3.

On each of the maps a curved line is traced, marked "15 ft. curve," or "15 ft. contour." It was designed to show that the water outside or east of the line was 15 feet deep or upwards. It will be seen that on the map of 1878 this line approaches very close to the shore on the site of the Thirteenth street pier. The line is extremely sinuous in this part of its course, but it indicates that perhaps one-third of the space now occupied by the pier was then covered by water 15 feet deep, or 13.2 feet below city *datum*. On the map of 1892, the 15-foot contour line is removed nearly 2,000 feet east-

ward. It is not less than 1,000 feet distant from the end of the pier. From no direction, according to this map, can a vessel approach the end of the pier drawing more than 14 feet. On neither of the two sides of the pier is a sounding noted of more than 13 feet, within the distance of 1,000 feet.

The difference in the results shown by these two surveys is easily accounted for. One was made in May, 1878, and the other in 1892, fourteen years later.

Major Marshall states (Rec., 555-6) that no dredging had been done by the Government in the outer harbor since he had been the resident engineer in charge of the public works in the district—that is, as he testifies, since April 1, 1888. During this period the depth of the water in the outer harbor had gradually diminished. A great deal of sand, he says, is swept around the end of the north pier, at the mouth of the river, and carried into the outer harbor at the east entrance opposite Van Buren street, and is deposited there over the entire basin. Then, in times of high water caused by heavy rains or melting snow, a large quantity of silt, consisting principally of mud and sewage, is brought down by the river and finds its way into the basin through the north entrance, and forms there sedimentary deposits. Much sediment from this source is deposited at the mouth of the river, where its effects in choking up and clogging the channel, as related by Major Marshall, have been very striking. (Rec., 560.)

The effects wrought in this way in a very few years, in which no efforts are made to remove the accumulations, will be considerable. It is a matter of common knowledge that the river is kept in suitable condition for navigation only by constant dredging. Large sums are expended here by the Government in that kind of work, to say nothing of expenditures made for the same purpose by owners of private docks and by the city.

There is no direct evidence in the case to show what changes had occurred in the depth of the water in the lower part of the

outer harbor between 1878 and 1885; but the same forces were at work during that period that have been noticed by Major Marshall since 1888. There is, therefore, every reason to believe that when the Thirteenth street pier was built by the Railroad Company in 1885, the water was considerably more shallow in front of the Company's works between Twelfth and Sixteenth streets than in 1878. There is good reason to suppose—indeed, there is apparently no reason whatever to doubt—that the changes wrought between the surveys of 1878 and 1892 were gradual, and approximately equal in each half of the intervening period. But this is a point of minor importance, for it is to be borne in mind that the question to be determined does not turn upon the condition of things at any antecedent period. Evidence of such antecedent conditions have no relevancy, except as it may have some tendency to prove what the situation is at the present time.

The sketch of the Chicago harbor of June 30, 1879, which has been put in evidence as "Complainants' Exhibit Q." (Map on page 23 of Book of Exhibits), was attached as an exhibit to the annual report made by Captain Lydecker to the Chief of Engineers in 1879. (Rec., 930.) It throws no additional light upon the particular question now under consideration; and as the plane of reference to which the soundings noted upon the map were reduced is not given, it seems to have little or no value for any purpose connected with the case. Attention, however, may be properly called to the three soundings of 12.4, 13.4 and 12.9 feet shown on the east or outer line of Piers 1, 2 and 3, north of Randolph street, and to the three soundings of 14.4, 10.1 and 10.9 feet on the south line of those piers.

A large number of soundings in front of the shore between Twelfth and Fourteenth streets are noted on the Wheeler map, referred to in a preceding part of this brief. This map was drawn from a survey made in 1869, and it will be found, on comparing the soundings then made in the lower part of the

outer harbor, and south of it, with those noted on the Lydecker map of 1878, and reducing both to the same plane of reference, that there is no substantial difference in the results shown. It would serve no useful purpose, therefore, to go into any detailed examination of these figures noted on the Wheeler map. The only important or striking fact shown is, that there was no appreciable difference in the average depth of the water inside the U. S. dock line between Peck court and Twelfth street—a distance of 1,600 feet—and the depth over the site of the Thirteenth street pier.

The subject will not be pursued further than may be necessary to bring succinctly before the court some facts of recent occurrence, which have an important bearing upon the questions at issue in this investigation.

On the 21st of October, 1895, an ordinance was passed by the city council of Chicago, by which—after setting forth the fact that it had been decided and adjudged by the Circuit Court and by the Supreme Court in the present case, that the City of Chicago, as riparian owner of the land on the shore of the lake between the north line of Randolph street and the north line of block 23 in fractional section 15 addition to Chicago, and in virtue of authority to that end conferred by its charter, has the power to construct and keep in repair in front of said land, public landing places, wharves, docks, and levees, subject, however, to the authority of the State by legislation to prescribe the lines beyond which such structures may not be extended into the waters of the harbor that are navigable in fact, and to such supervision and control as the United States may rightfully exercise in and over said harbor; and after reciting that permission had been obtained from the Secretary of War, according to the form of the statute of the United States in such case made and provided, to fill in a portion of the outer harbor, as far out as the harbor line established by the Secretary of War, September 22, 1890, upon certain conditions therein set forth at length, it was provided:

"SECTION I. That for the purpose of providing suitable public landing places for steam vessels and other craft employed in navigation on Lake Michigan, the public grounds of the City of Chicago known as Lake Park, lying east of Michigan avenue and between the south line of Randolph street and the north line of Lake Park place (formerly known as Park Row) shall be extended east of the tracks and grounds of the Illinois Central Railroad Company, by inclosing and filling all that space in the shallow waters of Lake Michigan within the outer harbor, so-called, inclosed within the following boundary lines, to wit: the south line of Randolph street produced, on the north; the harbor line established by the Secretary of War, September 22, 1890, on the east; the south line of Lake Park place produced, on the south; and the present westerly shore line of the said outer harbor, on the west."

By subsequent sections authority was granted to the Illinois Central Railroad Company to enter upon and use for railroad purposes two small parcels of the land proposed to be filled in and reclaimed—one at the north end and the other at the south end of the tract—provided the Company should pay to the City the cost of filling them or should do the work of filling at its own expense.

The Railroad Company was also authorized to fill in and use for railroad purposes another small parcel of land south of Lake Park place, lying between the shore line and a straight line drawn from a point in the south line of Lake Park place produced easterly, 761 feet east of the west line of Michigan avenue, to point in the north line of the Illinois Central Railroad Company's Thirteenth street pier, 1,320 feet east of the west line of Michigan avenue.

These grants were made to the Railroad Company upon the following conditions:

1. That it should cause, at its own expense, that section of its road-bed lying between a line 200 feet north of and parallel to the north line of Peck Court projected and the

north line of Monroe street projected to be depressed as therein provided.

2. That it should build, at its own expense, a retaining wall of mason work, with suitable parapet walls or fences thereon, one on each side of its roadway and grounds between Randolph street and Lake Park place, to be raised to a certain specified height, and to be of sufficient strength and solidity to serve permanently the purpose for which the walls were to be erected.

3. That it should, at its own expense, cause viaducts to be constructed across its tracks and right of way in line with the projection eastward of four streets between Randolph street and Lake Park place, to be designated by the city, each to have a carriage-way and two footways; and also cause a footway to be constructed, at its own expense, across its tracks and right of way in the line of any other street or streets between Randolph street and Lake Park place, whenever directed so to do by the Commissioner of Public Works—the superstructure of each of said viaducts and footways to be of metal.

4. That it should, at its own cost, cause the Randolph street viaduct to be altered and extended so as to furnish access to the new made public ground east of the railroad, and should maintain the same at its own expense.

5. That it should, at its own expense, cause a substantial and tight bulkhead or retaining wall to be constructed along the eastern dock line, and also along the southerly line of the area to be inclosed and filled, as provided in the first section of the ordinance, conformably to the requirements of the Engineer Officer of the United States Army having supervision of the work.

6. That it should furnish and deliver on the ground material to the extent of 200,000 cubic yards, if so much should be needed for the purpose, to fill in the Lake Front Park lying between the railroad and Michigan avenue, so that the surface should have a regular slope westward from the top of the retaining wall to be erected on the westerly side of the railroad down to the grade of Michigan avenue.

7. That it should relinquish to the city the two filled projections into the lake beyond the east line of its right of way at the foot of Peck court and Harrison street, and also any land there may be east of that part of its right of way, 200 feet in width, which lies between the two lines drawn across said right of way, one 70 feet north of and parallel to the north line of Adams street produced, and the other 74 feet north of and parallel to the north line of Eldredge court produced, easterly.

8. That the work required to be done by the Railroad Company should be done in such manner as not to obstruct unnecessarily the operation of the railroad, and should be commenced as soon as practicable and be prosecuted with all due diligence to completion.

Sections 10 and 11 of the ordinance read as follows:

"SEC. 10. The said Railroad Company shall relinquish and surrender to the city any riparian or littoral rights it may have incident or appurtenant to the land owned or occupied by it on the shore of the lake between the north line of Lake Park place projected and the north line of Twelfth street projected, upon the condition, however, that the area covered by the water lying east or outside of the parcel of land which said Railroad Company is authorized to fill in and reclaim for its own use by the fourth section of this ordinance, and between the south line of Lake Park place projected east and said Railroad Company's Thirteenth street pier, shall never be filled in, or access thereto from the waters of the lake obstructed, without the consent of said Railroad Company, excepting only that the said Railroad Company shall, if the requisite permission therefor shall be obtained from the Secretary of War, construct at its own expense a substantial bulkhead or breakwater about fifty feet wide, from the north-east angle of said Thirteenth street pier, in a northerly direction, on the same line as the eastern edge of that pier, for the distance of two hundred and fifty (250) feet, provided, however, that nothing herein contained shall be held to affect the rights of the City of Chicago to

exercise its rights of eminent domain—the pier so constructed to be maintained by the said Railroad Company and reserved for its own exclusive use; and also a like substantial bulkhead or breakwater of the same width, from the south-east angle of the ground to be inclosed and filled, as provided in the first section of this ordinance, in a southerly direction, to a point one hundred (100) feet south of the south line of Lake Park place projected—the said last mentioned pier to be maintained by the City of Chicago and held for public use.

“SEC. 11. All the public works herein required to be done by the said Railroad Company shall be done under the supervision and to the satisfaction of the Commissioner of Public Works of the City of Chicago.”

Section 13 provides that upon the acceptance of the ordinance by the Railroad Company, a contract embodying its provisions and binding the parties to the faithful observance and performance thereof shall be executed, sealed and delivered by the proper officers of the city and the Railroad Company, which shall be of perpetual obligation. (Rec., 1017-1027.)

The ordinance was duly accepted by the Railroad Company October 28, 1895, and on the 20th of November following a contract embodying its provisions was executed by the City and the Company pursuant to the provisions of the 13th section, by which it was mutually covenanted and agreed that the provisions contained in said ordinance “shall be of binding and perpetual obligation between said contracting parties, each of them covenanting and agreeing with the other to stand to, abide by, make good, and faithfully observe and perform all and singular the concessions, grants, stipulations, conditions and undertakings therein contained, according to the true intent, meaning and interpretation thereof.” (Rec., 1028-1053.)

Permission has been given by the Secretary of War, officially, in due form, to fill in those portions of the outer harbor described in the ordinance. The permits (two of them) is-

sued by the Secretary have been put in evidence, and will be found in the record on pages 1055-1057. (For tracings accompanying the permits, see pages 31 and 32 of Book of Exhibits.)

Thus it is seen that the United States dock line established in 1890, extending from Randolph street south to the Thirteenth street pier, *has been definitively accepted by the city council* as the line to which constructions may be lawfully extended in the outer harbor. The ordinance provides for filling in the entire area west of that line and converting it into solid ground, as far south as the prolongation of the south line of Lake Park place, and the Railroad Company is authorized to erect a bulkhead or breakwater, fifty feet wide, from the northeast corner of the Thirteenth street pier, in a northerly direction, on the same line as the eastern edge of that pier, for the distance of 250 feet. The plan adopted by the City contemplates that a small inner harbor or recess shall be provided for vessels on the north side of the pier, where, sheltered by the pier and breakwater, they may lie in safety. The retention of the pier is an essential part of the plan. The removal of any part of it would defeat the object intended, and be alike injurious to the interests of the public and the Railroad Company.

The plan has been approved by the War Department; and it is also shown by the testimony of Major Marshall that the pier furnishes valuable protection to the outer harbor—it shelters it from the high waves caused by a south-east wind. If the pier were not there, he states that there would probably be a demand for one in approximately the same location, although it would not be built perhaps so wide or so substantial. (Rec., 892.)

It appears from the evidence, as has been previously stated, that before the pier was built the plans were submitted to the Chief of the U. S. Corps of Engineers and received his approval. Major Marshall testifies that the pier does not extend

quite out to the harbor line; and it has been shown by the Government charts that the water is too shallow at the end and sides of the structure to permit a vessel of 15 feet draft to approach within several hundred feet of it. Captain Prindiville testifies that in 1894 he tried to take a vessel of 13 or 14 feet draft through the south entrance of the outer harbor; but the vessel grounded, and he was obliged to pull her back and desist from the attempt. (Rec., 734.) There is no evidence that any vessel has ever been obstructed by the pier, or that any complaint has been made that it interferes with navigation. It is very seldom that a vessel is seen in that locality. The water is so shoal that vessels of ordinary size are compelled to avoid it. No witness called on either side has expressed or intimated an opinion that the pier or any other structure of the Railroad Company in that vicinity extends into the lake beyond the line of practical navigability. All who have been asked for an opinion on the subject say exactly the contrary. Attention has been previously called to the testimony of the expert witnesses on this point, and to the fact that no attempt has been made by the State to rebut it.

With respect to the dock south of the pier, it is proper to remind the court that the greater part of the outer breakwater between the pier and the center line of Sixteenth street extended (nearly two-thirds of it) was erected in 1870, and the rest of it, as it appears, in 1882. (Rec., 923.) In one or two storms that occurred afterwards, the top of the latter portion of the structure was wrenched off by the waves; and it appears from the testimony of Mr. Jeffery that the work of restoration was going on in May, 1887, when his deposition was taken. (Rec., 365.) No change was made in the position of the breakwater. So much of it as was below the surface of the water was not destroyed or displaced. The upper part, which had been demolished, was simply restored.

The question was put to one or two witnesses by counsel

for the State, whether they had ever seen a vessel in the Weldon slip, or one alongside the Thirteenth street pier. They might have seen, at a spot four or five hundred feet south-east of the pier, the wreck of a vessel sunk there in 1894, which remained for a long time partly visible above the water. (Rec., 939.) They could have seen no staunch vessel of the ordinary size employed in lake navigation at the pier or in the slip, for the very good reason that no vessel of that class could possibly get there. A great deal of dredging must be done to make those constructions and much the larger portion of the outer harbor available for commercial uses. No work has been done by the Government inside the harbor for nearly fifteen years. Appropriations have been made for dredging; but Major Marshall testifies that he declined to expend the money, because no facilities for using the harbor for commercial purposes had been provided, except the docks and wharves of the Illinois Central Railroad Company. (Rec., 555-6, 893.)

To the wharves north of Randolph street the statement just made is inapplicable. The evidence shows that they are accessible to vessels of the largest class employed in lake navigation, and that the facilities they afford for the transportation of passengers by steamers and for the shipment and delivery of heavy freight have been made very useful. (Rec., 349, 365-6, 374, 860, 874, 929.) It is said in the argument filed for the appellants (p. 5), that "the land north of Randolph street has never been used for lake commerce by the railroad company itself." If by this nothing more is meant than that the railroad company is not engaged in the business of lake transportation, the assertion will not be disputed, but we do not perceive the relevancy of it. If anything more is intended, there is no evidence to support it. That the wharves and slips constructed by the railroad company between Randolph street and the river have supplied an urgent public want, is a fact which admits of no denial; and that the pier at the

foot of Thirteenth street and the dock south of it will eventually subserve a similar useful purpose cannot be reasonably doubted. Everybody knows of the obstacles which have stood in the way of any extensive improvement of the outer harbor. For more than twenty years the title to the submerged land in the harbor was in dispute. That controversy was not settled until 1892. The location of the railroad between the public ground and the harbor was also a serious embarrassment; a dozen or more railroad tracks had to be crossed to obtain access to the lake. By the passage and acceptance of the ordinance which has been referred to, these hinderances have been overcome. A large part of the work provided for in the ordinance has been done already; and, as the plan was one devised by the city, and the Federal authorities have approved it, there is reason to believe, if there are no further complications, that the work of dredging will soon be resumed by the Government and the water in all parts of the outer harbor made deep enough to float vessels of the largest class now employed in lake navigation.

V.

CLOSING SUGGESTIONS.

It was decided by the Circuit Court on the first trial of this case—Mr. Justice HARLAN presiding, and Judge BLODGETT concurring in the opinion—that none of the works in question were encroachments on the public right of navigation. After the case was remanded and further proofs had been taken, another judge—Circuit Judge SHOWALTER—sitting in the same court, reached the same conclusion; and since then, on a careful review of the evidence, his findings have been approved by the Circuit Court of Appeals. That decision perhaps is not absolutely conclusive; but, according to what has been frequently declared to be the settled doctrine of this court, the concurrent decisions of two courts upon a question of fact will not

be disturbed unless it is manifest that some serious or important mistake has been made in the consideration of the evidence. The burden is always on the appellant to show the error and the proof of error must be plain and palpable. *The Carib Prince*, 170 U. S., 655; *Stuart v. Hayden*, 169 U. S., 1; *Baker v. Cummings*, 169 U. S., 189; *Compania La Flecha*, 168 U. S., 104; *Dravo v. Fabel*, 132 U. S., 487; *The Richmond*, 103 U. S., 540; *The Ship Marcellus*, 1 Black, 414; *Morewood v. Enequist*, 23 How., 491.

But it will be said in reply to this that the decision of the Court of Appeals was not unanimous. There was a dissenting opinion, on which much reliance is placed apparently by counsel for the appellants. Upon looking into that opinion it will be seen that the objections of the dissenting judge are based, mainly at least, upon the assumption that the former judgment of this court was erroneous, and, but for that judgment, that the right of the Railroad Company to any part of the land in question "has not even the merit of the celebrated stipulation for a pound of flesh." The court, it was said, is "dealing with a nakedly technical right, which exists only because it has been adjudged to exist," and "ought to favor the public title, which is just and clear, rather than the private claim which is technical." In the mind of the learned judge that was evidently the paramount consideration, and it affects his opinion noticeably on every question of fact in the case. Ought the decision of the Court of Appeals to have been controlled or influenced by that conception of judicial duty? It is certain that the question on which so positive an opinion was pronounced, was not in the case then before the court, and was not open to discussion by counsel. Of this, there can be no doubt: the final determination of the question whether the Railroad Company had a right to construct wharves and piers in the marginal waters of the lake rested with the Supreme Court. That tribunal had already passed upon and authoritatively determined

the question, and the judges of the Circuit Court and Circuit Court of Appeals were bound to accept that decision, and to treat it with entire respect.

We ought to say, in conclusion, that it is due to the learned judges concurring in the decree from which this appeal is taken, that appropriate acknowledgment should here be made for the thoughtful consideration they have given to the evidence and for the able and considerate treatment of the case shown in the opinion of the court. It will be found, as we confidently believe, on a careful examination of the record, that there can be no serious doubt that the decision was right; and we, therefore, respectfully ask that the decree may be affirmed.

BENJAMIN F. AYER,

JOHN N. JEWETT,

For Illinois Central Railroad Company.

J. M. DICKINSON,

Of Counsel.

Supreme Court of the United States.

No. 28.—OCTOBER TERM, 1901.

The People of the State of Illinois ex rel. George Hunt, Attorney General, Appellant, <i>vs.</i> The Illinois Central Railroad Com- pany et al.	}	Appeal from the United States Cir- cuit Court of Appeals for the Seventh Circuit.
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[February 3d 1902.]

Mr. Justice HARLAN delivered the opinion of the Court.

This case has been heretofore in this court. *Illinois Central Railroad Company v. Illinois*, 146 U. S. 387. The decree then under review was affirmed in all respects except one, and as to that one the cause was remanded for further investigation of the facts upon which it depended.

The case involved the asserted ownership by the Illinois Central Railroad Company of certain piers, docks and wharves constructed by it on the lake front of the city of Chicago, east of Michigan avenue.

The State contended that the structures in question were erected, without authority of law, on lands belonging to it, and that the decree now before us was erroneous in not so declaring.

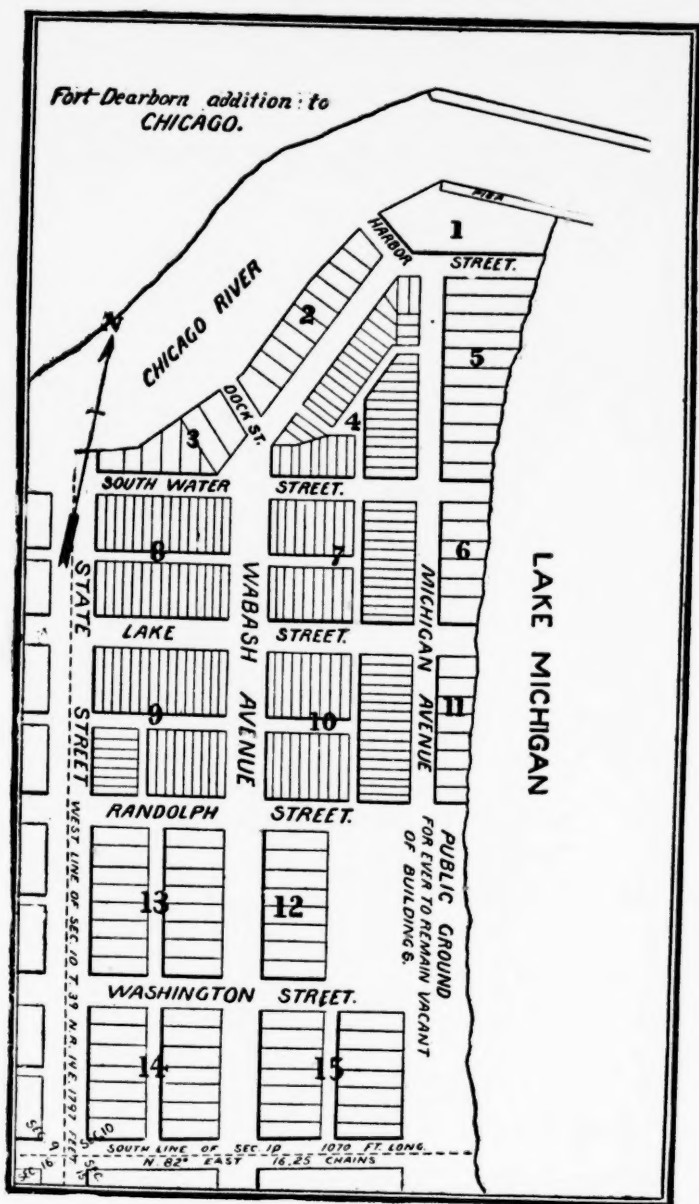
The Railroad Company contended that the mandate of this court on the former appeal left open for consideration by the Circuit Court only one question, namely, whether those structures extended beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on Lake Michigan; and that that issue of fact having been found in its favor, the Circuit Court could not properly have passed any other decree than one confirming the company's title to such structures.

The history of the litigation relating to this property is fully disclosed in *Illinois Central Railroad Company v. Illinois*, above cited. But it will be appropriate and will contribute to a clear understanding of the present appeal if the essential facts be restated in this opinion.

In the year 1883 an information was filed in the Circuit Court of Cook County, Illinois, by the People of that State against the Illinois Central Railroad Company, the city of Chicago and the United States of America. That case was removed into the Circuit Court of the United States for the Northern District of Illinois, and a motion to remand it to the State court

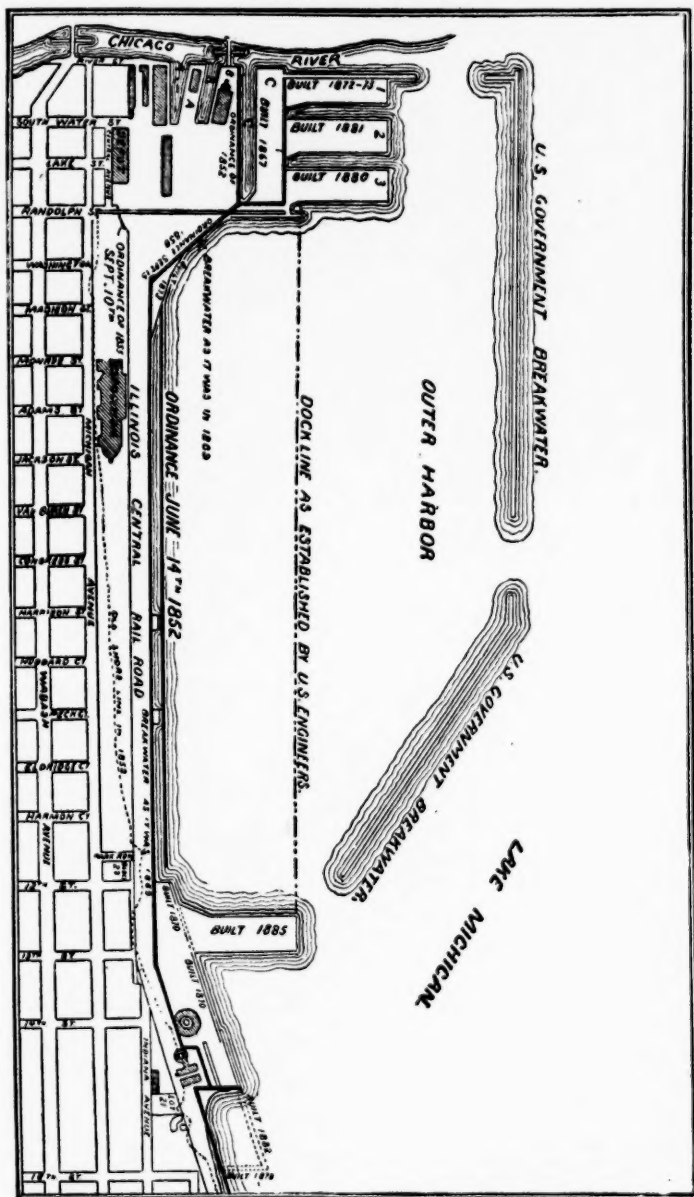
was overruled. 16 *Fed. Rep.* 881. In the same case the city of Chicago filed a cross-bill against the State and its co-defendants. At the same time there was pending in the Circuit Court of the United States for the same District an information in equity filed by the Government against the Illinois Central Railroad Company, the Michigan Central Railroad Company, the Chicago, Burlington and Quincy Railroad Company, the Baltimore and Ohio Railroad Company, and the city of Chicago.

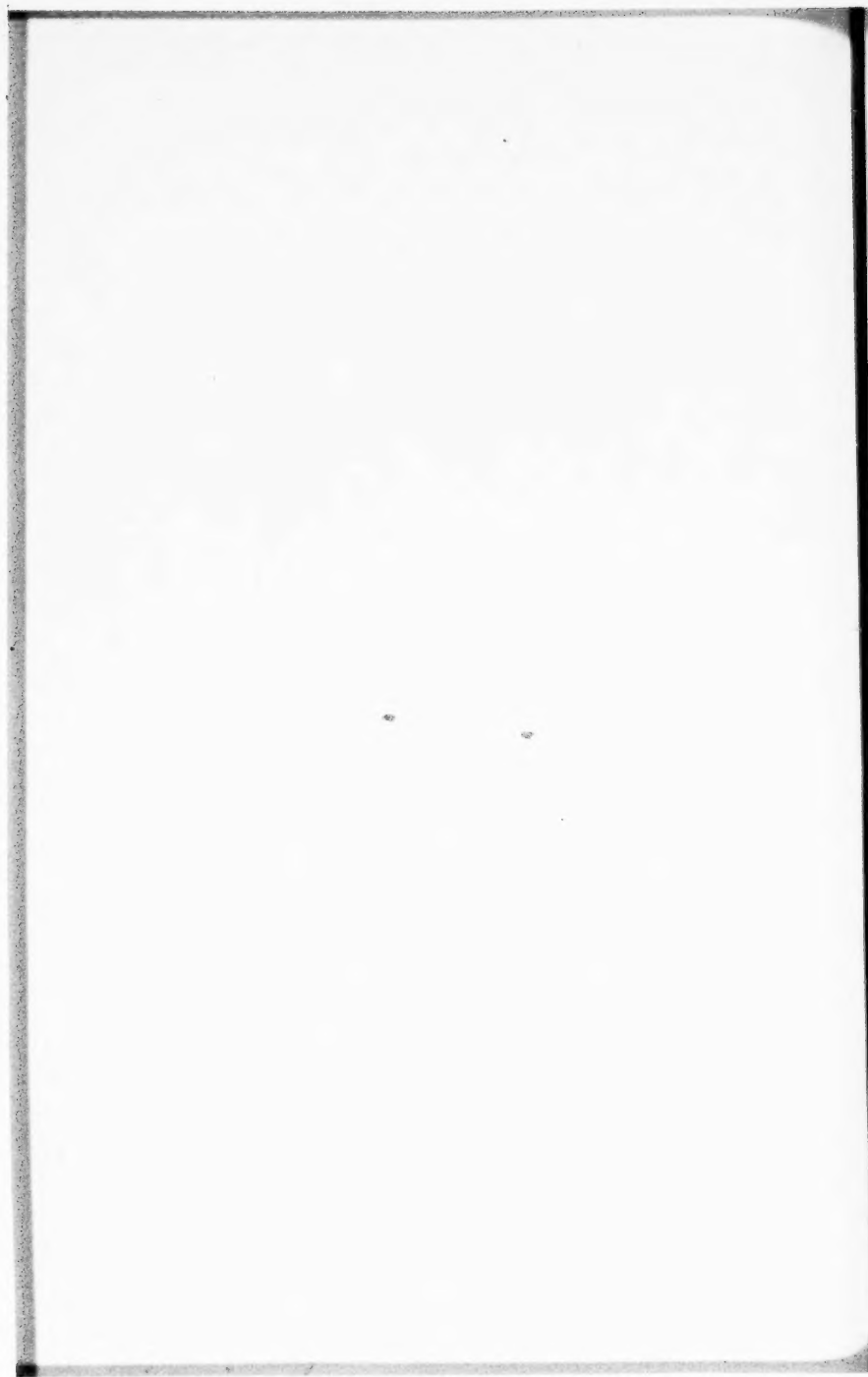
At the hearing of those causes in the Circuit Court certain maps were used; one being known as the map of "Fort Dearborn Addition to Chicago" made by direction of the Secretary of War, under the authority of an act of Congress, approved March 3d 1819; the other being known as the Morehouse Map. Both maps were made part of the opinion of this court in *Illinois Central Railroad v. Illinois*, and for convenience are here reproduced:





MOREHOUSE MAP.





The questions involved in the above suits are indicated by the following extract from the opinion of the Circuit Court at the original hearing: "The State, in the original suit, asks a decree establishing and confirming her title to the bed of Lake Michigan, and her sole and exclusive right to develop the harbor of Chicago by the construction of docks, wharves, &c., as against the claim by the railroad company that it had an absolute title to said submerged lands, described in the act of 1869,* and the right—subject to the paramount authority of the United States in respect to the regulation of commerce between the States—to fill the bed of the lake, for the purpose of its business, east of and adjoining the premises between the river and the north line of Randolph street, and also north of the south line of lot 21; and also the right, by constructing and maintaining wharves, docks, piers, &c., to improve the shore of the lake, for the purposes of its business, and for the promotion, generally, of commerce and navigation. The State, insisting that the company has, without right, erected, and proposes to continue to erect, wharves, piers, &c., upon the domain of the State, asks that such unlawful structures be directed to be removed, and the company enjoined from constructing others. The city, by its cross bill, insists that since June 7th 1839, when the map of Fort Dearborn addition was recorded, it has had the control and use for public purposes of that part of section 10 which lies east of Michigan avenue, and between Randolph street and fractional section 15; and that, as successor of the town of Chicago, it has had possession and control since June 13th 1836, when the map of fractional section 15 addition was recorded, of the lands in that

* "An act in relation to a portion of the submerged lands and Lake Park grounds, lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago. Passed over veto, April 16, 1869." The third section of that act reads:

"§ 3. The right of the Illinois Central Railroad Company under the grant from the State in its charter, which said grant constitutes a part of the consideration for which the said company pays to the State at least seven per cent of its gross earnings, and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control, in and to the lands, submerged or otherwise, lying east of the said line, running parallel with and 400 feet east of the west line of Michigan avenue, in fractional sections ten and fifteen, township and range as aforesaid, is hereby confirmed; and all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan, and lying east of the tracks and breakwater of the Illinois Central Railroad Company, for the distance of one mile, and between the south line of the south pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south and near to the round-house and machine-shops of said company, in the South division of the said city of Chicago, are hereby granted in fee to the said Illinois Central Railroad Company, its successors and assigns: provided, however, that the fee to said lands

addition north of block 23. It asks a decree declaring that it is the owner in fee, and of the riparian rights thereunto appertaining, of all said lands, and has, under existing legislation, the exclusive right to develop the harbor of Chicago by the construction of docks, wharves and levees, and to dispose of the same, by lease or otherwise, as authorized by law; and that the railroad company be enjoined from interfering with its said rights and ownership. The relief sought by the United States is a decree declaring the ultimate title and property in the 'Public Ground' shown on the plat of the Fort Dearborn addition, south of Randolph street, and also in the open space shown on the plat of fractional section 15 addition, to be in the United States, with the right of supervision and control over the harbor and navigable waters aforesaid; that the railroad companies and the city be enjoined from exercising any right, power or control over said grounds, or over the waters or shores of the lake; that the Illinois Central Railroad Company be restrained from making or constructing any piers, wharves or docks, and from driving piles, building walls or filling with earth or other materials in the said lake, or from using any made-ground, or any piers, wharves or other constructions made or built by or for it in or about the outer harbor, to the east of the 200-foot strip of its way-ground, or from taking or exacting any toll for such use; and that the Illinois Central Railroad Company be required to abate and remove all obstructions placed by it in said outer harbor, and to quit possession of all lands, waters and made-ground taken and held by it without right as aforesaid. The State, the city and the General Government all unite in contending that the Lake Front Act of 1869 is inoperative and void." 33 *Fed. Rep.* 730, 750.

shall be held by said company in perpetuity, and that the said company shall not have power to grant, sell, or convey the fee to the same; and that all gross receipts from use, profits, leases or otherwise of said lands, or the improvements thereon, or that may hereafter be made thereon, shall form a part of the gross proceeds, receipts and income of the said Illinois Central Railroad Company, upon which said company shall forever pay into the State treasury, semi-annually, the per centum provided for in its charter, in accordance with the requirements of said charter: and provided, also, that nothing herein contained shall authorize obstructions to the Chicago harbor, or impair the public right of navigation; nor shall this act be construed to exempt the Illinois Central Railroad Company, its lessees or assigns, from any act of the General Assembly which may be hereafter passed regulating the rates of wharfage and dockage to be charged in said harbor: and provided, further, that any of the lands hereby granted to the Illinois Central Railroad Company, and the improvements now, or which may hereafter be, on the same, which shall hereafter be leased by said Illinois Central Railroad Company to any person or corporation, or which may hereafter be occupied by any person or corporation other than said Illinois Central Railroad Company, shall not, during the continuance of such leasehold estate or of such occupancy, be exempt from municipal or other taxation."

A final decree was rendered in the Circuit Court on the 24th day of September 1888. By that decree it was adjudged that the fee of certain streets, avenues and grounds was in the city of Chicago in trust for public use; and that the city of Chicago, as riparian owner of such grounds on the east or lake front of said city, between the north line of Randolph street and the north line of block twenty-three, each of the lines being produced to Lake Michigan, and in virtue of authority to that end conferred by its charter, had, among other powers, the power to establish, construct, erect and keep in repair on the lake front, east of such premises, within the lines given, and in such manner as would be consistent with law, public landing places, wharves, docks and levees, subject, however, in the execution of that power, to the authority of the State by legislation to prescribe the lines beyond which piers, docks, wharves and other structures, other than those erected by the General Government, might not be extended into the waters of the harbor that were navigable in fact, and to such supervision and control as the United States might rightly exercise in and over such harbor, and subject also to the enjoyment by the Illinois Central Railroad Company of the rights then to be defined and described.

It was further adjudged:

"That the Illinois Central Railroad Company is the owner in fee of all the wharves, piers and other structures erected by it in the city of Chicago, east of Michigan avenue, south of Chicago River, and north of the north line of Randolph street, extended eastwardly as shown upon said Morehouse map, including the station grounds lying west of the slip C, the pier marked C, lying east of slip C, and represented upon the Morehouse map to have been built in 1867, and piers 1, 2 and 3, lying east of pier C last mentioned, and represented upon said map to have been built as follows: Pier 1 in 1872 and 1873, pier 2 in 1881, and pier 3 in 1880, and is also entitled to the use, for the purposes of its business, of the slips marked on said Morehouse map.

"That said company is likewise the owner in fee of all the wharves, piers and other works made and constructed by it in the city of Chicago, east of its main tracks, between the north line of block 23, in fractional section 15 addition to Chicago, and the center line of Sixteenth street extended, including the pier or line of piling represented upon the said Morehouse map to have been built in 1870, and the station grounds lying west of the said pier and contiguous thereto; also of the wharf or pier projecting into the lake from the grounds last mentioned, and represented upon the said Morehouse map to have been built in 1885; which said wharves, piers and other works so constructed and so far as constructed by the said Illinois Central Railroad Company, as aforesaid, are lawful structures and not encroachments upon the domain of the State of Illinois or upon the public right of navigation, or upon the property interests or estate of the said city of Chicago."

"And the court doth further find and declare, and it is hereby adjudged and decreed, that the third section of the act of the General Assembly of the State of Illinois, passed over the Governor's veto April 16th 1869, entitled, 'An act in relation to a portion of the submerged lands and Lake Park grounds lying on and adjacent to the shore of Lake Michigan, on the eastern frontage of the city of Chicago,' so far, at least, as it confirms 'the right of the Illinois Central Railroad Company under the grant from the State in its charter, . . . and under and by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident to such grant, appropriation, occupancy, use and control in and to the lands, submerged or otherwise, lying east of the said line running parallel with and four hundred feet east of the west line of Michigan avenue in fractional sections ten and fifteen,' is a valid and constitutional exercise of legislative power and legalizes as well what was done by said company prior to April 16th 1869 in the way of filling in the lake and constructing wharves, piers, tracks, warehouses and other works between the Chicago River and the north line of Randolph street extended eastwardly, as its occupancy and use for way ground of the two said triangular pieces of ground immediately south of Randolph street; and that the subsequent act of the General Assembly of Illinois, passed April 15th 1873, in so far as it sought by repealing the said act of April 16th 1869 to revoke or annul said confirmatory clause of the last named act, was void under the Constitution both of Illinois and of the United States; but the court is of opinion, and so adjudges and decrees, that the said act of April 15th 1873 repealing said act of April 16th 1869 had the effect in law to withdraw from said railroad company the grant to it, its successors and assigns, by the third section of said act of April 15th (16th) 1869, of 'all the right and title of the State of Illinois in and to the submerged lands constituting the bed of Lake Michigan and lying east of the tracks and breakwater of the Illinois Central Railroad Company for the distance of one mile, and between the south line of the pier extended eastwardly and a line extended eastward from the south line of lot twenty-one, south of and near to the round-house and machine shops of said company, in the south division of said city of Chicago;' and to reinvest the State with such right and title as it had in and to said premises prior to the passage of said act of April 16th 1869; and said repealing act had the further effect to withdraw from said company the additional power conferred upon it by said act of April 16th 1869 to improve the harbor of Chicago, and to engage in the business of constructing and maintaining wharves, piers and docks for the benefit of commerce and navigation generally, and not in the prosecution of its business, as defined and limited by its original charter and the laws of the State, saving, however, to said company as unaffected by said repeal the

right to hold and use as part of its way-ground or right of way, and not otherwise, the before-mentioned part of the submerged lands east of its breakwater between Monroe and Washington streets extended eastwardly, which was reclaimed from the lake in 1873, presumably upon the faith of the act of 1869, and is marked on the Morehouse map with the words 'built 1873.'

"It is further ordered, adjudged and decreed that the defendant, the Illinois Central Railroad Company, be, and it is hereby, perpetually enjoined and restrained from erecting structures in or filling with earth or other materials any portion of the bed of Lake Michigan as it now exists and as shown on said Morehouse map east or in front of said fractional sections ten and fifteen—that is, east or in front of the grounds now occupied and used by it between Chicago River and the north line of Randolph street extended eastwardly, or east or in front of the grounds now occupied and used by it between the north line of Randolph and the center line of Sixteenth street, each extended eastwardly, except that said company may complete the slip or basin already commenced immediately north of Sixteenth street extended, with a wharf on each side of it not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load and unload, and upon which tracks of the company may be laid; and it is considered and ordered by the court that the Illinois Central Railroad Company and the city of Chicago each pay one-half of the costs herein, and that execution issue therefor."

The railroad company not having obtained all it claimed, the cause was brought by it to this court, which affirmed the decree of the Circuit Court except as modified in certain particulars, to be presently indicated. *Illinois Central Railroad v. Illinois*, 146 U. S. 387, 449, 464.

Referring to the third section of the act of the Illinois legislature of 1869 this court said: "The section in question has two objects in view: one was to confirm certain alleged rights of the railroad company under the grant from the State in its charter and under and 'by virtue of its appropriation, occupancy, use and control, and the riparian ownership incident' thereto, in and to the lands submerged or otherwise lying east of a line parallel with and four hundred feet east of the west line of Michigan avenue, in fractional sections ten and fifteen. The other object was to grant to the railway company submerged lands in the harbor. The confirmation made, whatever the operation claimed for it in other respects, cannot be invoked so as to extend the riparian right which the company possessed, from its ownership of lands in sections ten and fifteen on the shore of the lake. Whether the piers or docks constructed by it, after the passage of the act of 1869, extended beyond the point of navigability in the waters of the lake, must be the subject of judicial inquiry

upon the execution of this decree in the court below. If it be ascertained upon such inquiry and determined that such piers and docks do not extend beyond the point of *practical* navigability, the claim of the railroad company to their title and possession *will be confirmed*; but if they or either of them are found on such inquiry to extend beyond the point of such navigability, then the State will be entitled to a decree that they, or the one thus extended, be abated and removed to the extent shown, or for such other disposition of the extension as, upon the application of the State and the facts established, may be authorized by law."

The modifications in the original decree of 1888 which this court directed to be made are distinctly shown by the following extract from our opinion:

"It follows from the views expressed, and it is so declared and adjudged, that the State of Illinois is the owner in fee of the submerged lands constituting the bed of Lake Michigan, which the third section of the act of April 16th 1869 purported to grant to the Illinois Central Railroad Company, and that the act of April 15th 1873 repealing the same is valid and effective for the purpose of restoring to the State the same control, dominion and ownership of said lands that it had prior to the passage of the act of April 16th 1869.

"But the decree below, as it respects the pier commenced in 1872, and the piers completed in 1880 and 1881, marked 1, 2 and 3, near Chicago River, and the pier and docks between and in front of Twelfth and Sixteenth streets, is *modified* so as to direct the court below to order such investigation to be made as may enable it to determine whether those piers erected by the company, by virtue of its riparian proprietorship of lots formerly constituting part of section 10, extend into the lake *beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake*; and if it be determined upon such investigation that said piers, or any of them, do *not* extend beyond such point, then that the title and possession of the railroad company to such piers *shall be affirmed by the court*; but if it be ascertained and determined that such piers, or any of them, do extend beyond such navigable point, then the said court shall direct the said pier or piers, to the *excess ascertained*, to be abated and removed, or that other proceedings relating thereto be taken on the application of the State as may be authorized by law; and also to order that similar proceedings be taken to ascertain and determine whether or not the pier and dock, constructed by the railroad company in front of the shore between Twelfth and Sixteenth streets *extend beyond the point of navigability, and to affirm the title and possession of the company if they do not extend beyond such point*, and, if they do extend beyond such point, to order the abatement and removal of the excess, or

that other proceedings relating thereto be taken on application of the State as may be authorized by law. *Except as modified in the particulars mentioned*, the decree in each of the three cases on appeal must be affirmed, with costs against the railroad company; and it is so ordered." *Illinois Central Railroad v. Illinois*, 146 U. S. 387, 449, 464.

The mandate of this court embodied the above extract from its opinion, and upon the return of the causes to the Circuit Court the parties took additional proof on the single matter so reserved for investigation.

Upon final hearing in the Circuit Court, May 1896, a decree was entered by which it was found and adjudged "that the said piers and docks referred to in the aforesaid judgment and mandate of the Supreme Court and there described as piers marked 1, 2, and 3, near Chicago River, and the piers and docks constructed by the said railroad company in front of the shore between Twelfth and Sixteenth streets, all in the city of Chicago, in the State of Illinois, do not extend, nor does either of them extend, into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake. It is therefore ordered, adjudged and decreed that the title and possession of the said Illinois Central Railroad Company to the said piers, and each of them and every part thereof, be, and the same is hereby, affirmed."

That decree was affirmed by the Circuit Court of Appeals, 91 *Fed. Rep.* 955, and the case is here upon appeal by the State of Illinois. No appeal was taken by the United States or by the city of Chicago.

In view of these facts what matters are open for consideration on this appeal? This question was fully discussed at the bar. It is not in our opinion difficult of solution.

We have seen that by the original decree of the Circuit Court rendered September 24th 1888, the railroad company was adjudged to be the owner in fee of the particular structures in question, namely, the piers marked 1, 2 and 3 on the Morehouse map, as well the piers and docks between and in front of Twelfth and Sixteenth streets, and were entitled to use and control them in its business. This court held that view to be correct, *provided* the structures did not "extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake." If, upon investigation, it was found that the structures referred to did, in fact, extend beyond that point, then the Circuit Court was directed to make such decree as would effect their removal "to the excess ascertained;" and if the contrary was found to be the case, then a decree was to be entered recognizing the rights of the railroad company in respect of the structures in question to be such as were declared by the original decree of the Circuit Court.

As already shown, the Circuit Court found, upon full inquiry, that the structures did not extend beyond the point of practical navigability, having reference to the manner in which commerce was conducted on the lake; and in conformity with the mandate a decree was entered confirming the title of the railroad company.

In *Sibbald v. United States*, 12 *Pet.* 488, 492, this court said: "A final decree in chancery is as conclusive as a judgment at law. 1 *Wheat.* 355; 6 *Wheat.* 113, 116. Both are conclusive on the rights of the parties thereby adjudicated. No principle is better settled, or of more universal application, than that no court can reverse or annul its own final decrees or judgments, for errors of fact or law, after the term in which they have been rendered, unless for clerical mistakes; 3 *Wheat.* 591; 3 *Peters*, 431; or to reinstate a cause dismissed by mistake, 12 *Wheat.* 10; from which it follows, that no change or modification can be made, which may substantially vary or affect it in any material thing. . . . Whatever was before the court, and is disposed of, is considered as finally settled. The inferior court is bound by the decree as the law of the case; and must carry it into execution, according to the mandate. They cannot vary it, or examine it for any other purpose than execution; or give any other or further relief; or review it upon any matter decided on appeal for error apparent; or intermeddle with it, further than to settle so much as has been remanded. After a mandate, no rehearing will be granted, and on a subsequent appeal, nothing is brought up, but the proceeding subsequent to the mandate. 5 *Cranch*, 316; 7 *Wheat.* 58, 59; 10 *Wheat.* 443."

In *Roberts v. Cooper*, 20 *How.* 467, 481, the court said: "On the last trial, the Circuit Court was requested to give instructions to the jury contrary to the principles established by this court on the first trial, and nearly all the exceptions now urged against the charge are founded on such refusal. But we cannot be compelled on a second writ of error in the same case to review our own decision on the first. It has been settled by the decisions of this court, that after a case has been brought here and decided, and a mandate issued to the court below, if a second writ of error is sued out, it brings up for revision nothing but the proceedings subsequent to the mandate. None of the questions which were before the court on the first writ of error can be reheard or examined upon the second. To allow a second writ of error or appeal to a court of last resort on the same questions which were open to dispute on the first, would lead to endless litigation. In chancery, a bill of review is sometimes allowed on petition to the court; but there would be no end to a suit if every obstinate litigant could, by repeated appeals, compel a court to listen to criticisms on their opinions, or speculate of chances from changes in its members. . . . We can now notice, therefore, only such errors as are alleged to have occurred

in the decisions of questions which were peculiar to the second trial." To the same effect are numerous cases, some of which are cited in the margin.*

It is clear, under the adjudged cases, that upon the return of this cause to the Circuit Court, nothing was before that court except to inquire whether the structures erected by the railroad company, and specifically described in the opinion and mandate of this court, extended into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels was conducted on the lake. That matter, and nothing more, has been or could have been determined by the final decree of the Circuit Court, and therefore on this appeal we can only inquire as to the soundness or unsoundness of its conclusion upon the sole question reserved for investigation. We therefore do not stop to consider, as the appellant insists we should do, whether this court erred in any particular its opinion or judgment on the former appeal in respect of any matter then determined. Every matter embraced by the original decree of the Circuit Court and not left open by the decree of this court, was conclusively determined, as between the parties, by our former decree, and is not subject to re-examination on this appeal.

We come, then, to consider the merits of the case as involved in the only question now before us, namely, whether the structures referred to extend beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake.

Judge Showalter in the Circuit Court found that the facts relating to the structures north of Randolph street and those between Twelfth and Sixteenth streets fully protected the railroad company under the rule prescribed by the mandate of this court. Referring to vessels of the largest class continuously used in lake navigation, he said: "Such vessels, when ladened, require from 16 to 20 feet of water in which to float. A vessel drawing more than 12 feet, as I find from the evidence in the case, would hardly reach the structure here in question in the ordinary stages of water, and in the lowest water vessels requiring more than 10 feet could not reach or land at these docks. Without being specific as to the exact depth of the water, I find that the two piers and docks between Twelfth and

* *Martin v. Hunter's Lessee*, 1 Wheat. 304, 355; *Browder v. McArthur*, 7 Wheat. 58; *Washington Bridge Co. v. Stewart*, 3 How. 413, 425; *Chaires v. United States*, 3 How. 611, 620; *Corning v. Troy Iron and Nail Factory*, 15 How. 451, 466; *Peck v. Sanderson*, 18 How. 42; *Whyte v. Gibbes*, 20 How. 841; *Ex parte Dubuque and Pacific Railroad*, 1 Wall. 69, 73; *Noonan v. Bradley*, 12 Wall. 121, 129; *Supervisors v. Kennicott*, 94 U. S. 498; *Stewart v. Salamon*, 97 U. S. 361; *Brooks v. Railroad Co.*, 102 U. S. 107; *Northern Pacific Railroad Co. v. Ellis*, 144 U. S. 458, 464; *Gaines v. Rugg*, 148 U. S. 228, 241; *Last Chance Mining Co. v. Tyler Mining Co.*, 157 U. S. 683, 691; *New Orleans v. Citizens' Bank*, 167 U. S. 371, 396; *In re Sanford Fork and Tool Co.*, 160 U. S. 247.

Sixteenth streets do not extend into the lake beyond the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lakes, and I make the same finding as to the piers and docks north of Randolph street."

In the Circuit Court of Appeals, Judge Jenkins, speaking for the court, said: "The right [of the riparian owner] is a relative right, having relation, in the language of the Supreme Court in this cause, 'to the manner in which commerce in vessels is conducted on the lake.' To serve any useful purpose those piers must reach water of sufficient depth to float vessels when laden, and alongside of which vessels can be brought to be conveniently loaded or unloaded. A sufficient depth of water to float vessels such as navigate the waters of the lake is essential, and it is a necessary incident of the riparian right that the pier shall penetrate the water to a distance from the shore necessary to reach water which shall float vessels, the largest as well as the smallest, that are engaged in the commerce of the lakes. *Atlee v. Packet Company*, 21 Wall. 393; *Langdon v. Mayor of New York*, 93 N. Y. 151. . . We must have regard to the object for which this right is conferred. It is to reach out to accommodate the vessels that plow the waters of the lake. It is in aid of the commerce of the lake, and that right for that purpose should be liberally interpreted and upheld."

After referring to the harbor line adopted by the United States government at the request of the city of Chicago, the court proceeded: "Without undertaking to say to what extent these proceedings of the city of Chicago were authorized as between it and the people of the State of Illinois, it is sufficient to say that these things have been done without any adverse action on the part of the State of Illinois. If they have no other effect, they tend to strengthen, if support be needed, the general drift of all the evidence in the case, that the necessities of the commercial marine of the Great Lakes require substantially a depth of water of twenty feet to float the larger class of vessels, and indicate that that depth at the present time marks 'the point of practical navigability, having reference to the manner in which commerce in vessels is conducted on the lake.' It is conceded that the piers in question do not intrude into the waters of the lake to that extent, and that the depth of water can be obtained at them only by dredging. Conceding then, as we must, the right of the railroad company to reach that point of practical navigability, these structures were not and are not unlawful, and its rights to them must be sustained. The title to submerged lands resting in the State, are held in trust in aid of navigation. Courts have at all times been diligent to protect and enforce rights of navigation, in aiding and protecting whatever may tend to build up and encourage commerce upon the seas. It does not comport with our sense of duty in the protection of a mere naked legal right to submerged

land, to deny a conceded riparian right—conceded because so declared by the ultimate tribunal—when that bare legal title is held in trust for the very purpose to which these structures are devoted, namely, the accommodation of the commerce of the lake. To compel the abatement or removal of these structures to the extent demanded, or to any extent, in view of the establishment of the harbor line as indicated, would be to render them useless for the accommodation of the commerce of the lakes, and to practically deny to the appellee a substantial and valuable riparian right to which the Supreme Court has determined it is entitled.”

The words of our mandate, “*practical navigability*, having reference to the manner in which commerce in vessels [on the lake] is conducted,” admonished the Circuit Court that the question as to the extent to which the railroad company could rightfully continue to occupy the bed of the lake with piers, docks or wharves was not to be determined upon narrow, technical grounds, but upon grounds which, under all the circumstances, would be fair and reasonable as between the company and the public, having reference to the manner in which commerce was commonly or habitually conducted in vessels of various sizes.

It is said that in determining whether the piers and docks in question extended into the lake beyond the point of practical navigability, the Circuit Court could only take into view the size and capacity of vessels habitually employed on the lake at the commencement of this litigation or at the date of the original decree in the Circuit Court.

We are of opinion that nothing in our mandate or opinion compelled the Circuit Court to frame its decree upon that theory. That court was directed to ascertain whether the structures complained of extended beyond practical navigability, having reference to the manner in which commerce “*is conducted on the lake.*” There was no intention to withhold the power to determine the particular matter reserved for investigation in the light of the situation as it was when that investigation was made. If this court had intended that investigation should relate to the situation as it was when the litigation commenced, or when the original decree was rendered, it would have so declared. If, having reference to the manner in which commerce in vessels was conducted at the time of the investigation below, the structures in question did not extend into the lake beyond the point of practical navigability, then the Circuit Court, in the execution of the mandate of this court, properly confirmed the title and possession of the railroad company as established by the original decree.

It appears from the evidence that in 1847 the largest vessel on the lake had capacity sufficient to carry 18,000 bushels of corn; that in 1860 some grain vessels carried as much as 20,000 bushels, having a draft of about twelve or twelve and a half feet. In 1869, some vessels had a draft of

thirteen feet. Later, and during the period covered by the investigation, there were vessels on the lake carrying 100,000 bushels of corn, while others carried as much as 160,000 bushels, the latter drawing from sixteen to eighteen feet of water. The proof shows that the tendency for many years prior to the rendition of the decree was to increase the carrying capacity of vessels. That was particularly so in the case of metal steamers, some of which carried as much as 4,000 or 5,000 tons, while others varied in draft from ten to eighteen feet. There were, at the time of the investigation below, vessels regularly engaged in commerce on the lake whose draft was as much as twenty feet.

It is safe to say that according to the evidence in the cause a wharf or pier in the lake would not have adequately accommodated commerce, as carried on in many vessels on the lake, unless it had reached water not less than from fourteen to eighteen feet deep; and even such a structure could not have been used by the largest vessels on the lake. It was shown by soundings that the structures in question extended no farther into the lake than was necessary to accommodate a great number of vessels of moderate capacity. When the investigation below was entered upon, pursuant to our mandate, the depth of water in the channel of Chicago River over the La Salle and Washington street tunnels was about sixteen feet and eight inches—a greater depth than exists at the outer edge of the piers, docks and wharves in question, except that at the mouth of the Chicago River, against the ends of some of the company's structures, there is a depth of eighteen to twenty feet, obtained by dredging. The average depth of water at the outer line of the structures in question does not exceed twelve or thirteen feet at the utmost, which is insufficient for the accommodation of a vast amount of commerce carried on in vessels on the lake. An examination of the evidence will disclose this fact beyond all serious controversy.

We are therefore of opinion that there was no error in holding that, in view of the manner in which commerce was conducted on the lake during the period of the investigation below, such structures did not extend into the water beyond the point of practical navigability. Regard being had to the weight of the proof, the same conclusion would be reached if we looked at the capacity of the vessels used on the lake at the time of the original decree in the Circuit Court.

Confirmation of these views will be found in the testimony of many witnesses whose opinions are entitled to respect. Captain Marshall of the Engineer Corps of the United States Army, having accurate knowledge of the harbor of Chicago and of its needs, was asked the question: "Having reference to the manner in which commerce in vessels is now conducted on the lakes at the port of Chicago, what, in your opinion, is the reasonable and necessary depth of water in a slip or dock for the ac-

commodation of that commerce?" His answer was: "At present no vessel with a deeper draft than about sixteen feet can carry on commerce in the Chicago River, so that I should think that a foot deeper than that, seventeen feet, would be a proper depth to accommodate the largest as well as the smallest vessels that come to Chicago now." He was also asked: "If you were to construct a pier or wharf in the said outer harbor for the accommodation of vessels engaged in lake commerce, or were to advise in relation thereto, what would be the depth of water you would consider it necessary to reach in order that such pier or dock should be available for the uses intended?" He replied: "Seventeen feet at present, and ultimately they should construct their docks with twenty feet of water. Piling and bulkheads so as to stand dredging to twenty feet." Many other witnesses testified substantially to the same effect.

It does not follow from what has been said that the railroad company can, of right, further extend into the lake either the structures in question or new structures. While sustaining the title and possession of the railroad company in respect to piers and docks, *so far as then constructed*, the original decree of 1888 perpetually enjoined the railroad company from erecting structures in or filling with earth or other materials any portion of the bed of Lake Michigan as it then existed and was shown on the Morehouse map east or in front of the fractional sections ten and fifteen, that is, "east or in front of the grounds *now* [at the date of the original decree] occupied and used by it between Chicago River and the north line of Randolph street extended eastwardly, or east or in front of the grounds now [then] occupied and used by it between the north line of Randolph and the center line of Sixteenth street, each extended eastwardly, except that said company may *complete the slip or basin* already commenced immediately north of Sixteenth street extended, with a wharf on each side not exceeding one hundred feet in width each, where vessels coming into such slip or basin may load or unload, and upon which tracks of the company may be laid." These restrictions imposed by the original decree were confirmed by the former decree of this court, leaving open only the question whether the structures complained of, and as then constructed and maintained, extended into the lake beyond the point of practical navigability. So that the railroad company cannot acquire by the present decision any authority to further extend its structures into the lake. It must stand upon the original decree of the Circuit Court in respect of its rights.

We may add that the Circuit Court and the Circuit Court of Appeals having concurred in finding that the structures in question did not extend into the lake beyond the point of practical navigability—which is largely, if not entirely, a question of fact—the decree should not be disturbed unless it was clearly in conflict with the evidence. *Compania La Flecha*

Reilly

v. Brauer, 168 U. S. 104, 123; *Stuart v. Hayden*, 169 U. S. 1, 14; *Baker v. Cummings*, 169 U. S. 189, 198; *The Carib Prince*, 170 U. S. 655.

For the reasons stated the decree of which the State complains must be affirmed.

It is so ordered.

The CHIEF JUSTICE having been of counsel for the city of Chicago in the earlier stages of this litigation, took no part in the consideration or decision of this case.

True copy.

Test :

Clerk Supreme Court, U. S.



